DESCRIPTIVE LIST

of

THE NEW MINERALS

1892-1938

The quality of the materials used in the manufacture of this book is governed by continued postwar shortages

DESCRIPTIVE LIST

of

THE NEW MINERALS

1892-1938

Containing

ALL NEW MINERAL NAMES

Not mentioned in DANA'S *System of Mineralogy*,
Sixth Edition, 1892

COMPILED BY

GEORGE LETCHWORTH ENGLISH

Consulting Mineralogist

FIRST EDITION
FOURTH IMPRESSION

McGRAW-HILL BOOK COMPANY, INC.
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PREFACE

This list is designed to save the busy mineralogist the hitherto necessary labor of hunting through much literature to find descriptions of new minerals. It includes all new English names in the following publications, to which due credit is hereby given and grateful acknowledgment made:

Appendices I, II, III (1899–1915) of Dana's "System of Mineralogy," sixth edition, 1892.

Dana's "Textbook of Mineralogy," fourth edition, 1932.

The American Mineralogist, vols. 1 to 23 (No. 6), 1916 to June 30, 1938.

The Mineralogical Magazine, vols. 8 to 24 (No. 161), 1888 to June 30, 1938.

Mineral Abstracts, vols. 1 to 7 (No. 6), 1920 to June 30, 1938.

Chemical Abstracts, vols. 1 to 32, June 20, 1938.

Wherever stated in the foregoing literature, the following items are given:

References
Crystal system
Form
Color
Hardness
Specific gravity
Chemical composition
Chemical formula
Prominent localities

Other data are frequently added.

Great care has been taken to prevent errors. The compiler will be grateful if his attention is called to any errors, in order that they may be corrected in future editions.

GEORGE LETCHWORTH ENGLISH.

ROCHESTER, NEW YORK,
January, 1939.

ABBREVIATIONS

Ab.	Abstract in
AM	*American Mineralogist* (Journal of The Mineralogical Society of America)
Ap.I	First Appendix to Dana's "System of Mineralogy," sixth edition
Ap.II	Second Appendix to Dana's "System of Mineralogy," sixth edition
Ap.III	Third Appendix to Dana's "System of Mineralogy," sixth edition
CA	*Chemical Abstracts* (American Chemical Society)
DS	Dana's "System of Mineralogy," sixth edition, 1892
DS No.	Species Number in Dana's "System of Mineralogy"
DT	Dana's "Textbook of Mineralogy," fourth edition, 1932
G	Specific gravity
H	Hardness
MA	Mineral Abstracts (in *Mineralogical Magazine*)
MM	*Mineralogical Magazine* (Journal of the Mineralogical Society of Great Britain)
p	page
pp	pages

DESCRIPTIVE LIST OF THE NEW MINERALS, 1892–1938

A

Aanerödite. AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).
Preferred spelling of ånnerödite, DS No. 530.

Acarbodavyne. Ab. MM 20, 444 (No. 110).
A variety of davyne (DS p. 428) lacking carbon dioxide.

Achiardite. Ap. III, 1. Ab. MM 16, 352 (No. 77).
Same as dachiardite.

Achlusite. Ap. III, 1. Ab. MM 16, 352 (No. 77). CA 8, 40.
A green alteration product of topaz, resembling steatite, but near soda-mica in composition. Tasmania.

Achromaite. Ab. MM 22, 614 (No. 134).
A variety of hornblende, colorless in microsections, forming a constituent of weigelite (hornblende-peridotite) from Weigelsberg, Jugoslavia.

Acmite-augite. Ab. MM 16, 352 (No. 77).
Same as aegirine-augite, but brown in color.

Acrochordite. Ab. AM 8, 167 (Sept. 1923). Ab. MM 20, 444 (No. 110). CA 17, 2096.
See akrochordite.

Adamite. Ab. MM 18, 373 (No. 87).
Trade name for artificial corundum. Compare aloxite and alundum. Not to be confused with the mineral adamite, a basic zinc arsenate, DS No. 563.

Aegirine-augite. Ab. MM 12, 378 (No. 58).
Intermediate between augite and aegirite. Same as aegirite-augite.

Aegirine-diopside. Ab. MM 12, 378 (No. 58).
Same as aegirine-augite.

Aegirine-hedenbergite. Ap. II, 86. Ab. MM 14, 394 (No. 67).
Same as aegirite-hedenbergite.

Aegirite. Ab. MM 16, 352 (No. 77).
Trade name of a bitumen allied to elaterite. Not to be confused with the pyroxenic mineral, DS No. 326.

Aegirite-augite. Ap. I, 57. DT 559. CA 26, 672.
A variety of augite containing alkalies, especially soda, probably in the form of the acmite molecule. Same as aegirine-augite.

Aegirite-hedenbergite. DT 562. Ab. AM 6, 105 (June 1921).
Monoclinic. Green. G 3.502. An isomorphous mixture of aegirite and hedenbergite. Madagascar.

Aeonite. Ab. MM 16, 352 (No. 77).
Trade name of a bitumen very similar to elaterite.

Afwillite. DT 687. Ab. AM 10, 447 (Dec. 1925). MM 20, 277–286. MA 5, 324. CA 19, 2795.
Monoclinic. Elongated, prismatic crystals. White or colorless. H 4. G 2.630. A hydrous basic calcium silicate. $Ca_3Si_2O_6(OH)_2.2H_2O$. Possibly a combination of 75.84% hydrated calcium silicate, H_2CaSiO_4, and 23.10% calcium hydroxide, $Ca(OH)_2$. Kimberley, South Africa; Scawt Hill, County Antrim, Ireland.

Aglaurite. Ap. III, 1. Ab. MM 15, 415 (No. 72).
An orthoclase with a fine blue reflection. Teplitz, Bohemia.

Agnolite. Ap. II, 1. DT 640. MA 2, 352. CA 19, 952.
Triclinic. Radiating fibrous masses. Flesh-red to rose. H 5. G 3.054–3.067. A hydrous silicate of manganese and calcium. $H_2(Mn,Ca)_3(SiO_3)_4.H_2O$. Later shown to be identical with inesite. Schemnitz, Bohemia.

Ahlfeldite. Ab. AM 20, 678 (Sept. 1935). MA 6, 147. CA 32, 889.
Crystalline. Reddish. A complex nickel selenate. Near Colquechaca, Chile.

Aidyrlite. **Ab. AM 21, 269 (Apr. 1936). MA 6, 150. CA 31, 340.**
Colloidal. Small veins cutting limestone. Turquois-blue. H 1–4. G about 2.5. A hydrous silicate of nickel and aluminum. Approximately $2NiO.2Al_2O_3.3SiO_2.7\frac{1}{2}H_2O$. Aidyrly, Orenburg, Southern Urals.

Aikinite. **Ab. MM 24, 601 (No. 158).**
A pseudomorph of wolframite after scheelite. Cornwall, England. Not to be confused with aikinite, DS No. 138.

Ajkaite. **DT 776. Ab. AM 13, 72 (Feb. 1928). Ab. MM 21, 556 (No. 122). MA 3, 362. CA 22, 4085.**
Amorphous. Pale yellow to dark reddish brown. H 2.5. G 1.05–1.06. A fossil resin "with a characteristic amount of sulfur and no succinic acid." Ajka, Hungary.

Akermanite. **AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).**
Preferred spelling of åkermanite, DS near No. 391.

Akrochordite. **DT 720. Ab. AM 8, 167 (Sept. 1923). MA 2, 51; 3, 6. Ab. MM 20, 144 (No. 110).**
Monoclinic. Minute, spherical crystal aggregates. Yellowish red-brown. H 4.5. G 3.194. A hydrous arsenate of manganese and magnesium. $Mn_3As_2O_8.MnOH.MgOH.5H_2O$. Langban, Sweden.

Alaïte. **Ap. III, 1. DT 510. Ab. MM 15, 415 (No. 72). CA 21, 3584.**
Compact, moss-like masses. Blood-red. Soft. A hydrated vanadic oxide. $V_2O_5.H_2O$. Alai Mts., Russian Turkestan.

Alamosite. **Ap. II, 1; III, 1. DT 567. Ab. MM 15, 415 (No. 72). CA 3, 1511.**
Monoclinic. Minute crystals and radiating fibrous aggregates. Snow-white. H 4.5. G 6.488. Lead metasilicate. $PbSiO_3$. Closely related to wollastonite. Alamos, Sonora, Mexico.

Albanite. **Ab. MM 16, 352 (No. 77). CA 6, 2049.**
Black. G 1.644. A bituminous material. Albania.

Albiclase. **Ab. AM 11, 138 (May 1926). Ab. MM 21, 556 (No. 122).**
A contraction of albite-oligoclase. Feldspar of the plagioclase series, ranging from $Ab_{90}An_{10}$ to $Ab_{80}An_{20}$.

Alcohol. **AM 22, 682 (May 1937).**
"A very early name for the mineral now known as stibnite." L. J. Spencer.

Alexandrolite. **Ap. I, 2. AM 1, 64 (Oct. 1916). Ab. MM 11, 323 (No. 53). CA 31, 7801.**

Amorphous. Green. A hydrous silicate of aluminum, chromium, and iron. Near miloschite and, like it, an alteration product of avalite. Rudniak, Jugoslavia; Western Australia.

Alexjejevite. **Ap. I, 2. Ab. MM 11, 236 (No. 52); 11, 323 (No. 53).**

Resembles compact turf. Wax-like. White to brown. G 0.950. A hydrocarbon; C 83.4, H 13.8. Kaluga, Russia.

Alite. Alith. **Ap. II, 2. Ab. MM 12, 378 (No. 58).**

Probably orthorhombic. An important constituent of Portland cement clinkers. A silicate and aluminate of calcium $x(3CaO.SiO_2) + (9CaO.2Al_2O_3)$.

Alkali-beryl. **Ab. MM 22, 614 (No. 134).**

Name for beryls rich in alkalies (Li_2O, up to 2%; Na_2O, 4.22%; K_2O, 2.25%; Cs_2O, 4.56%; Rb_2O, 1.34%).

Alkalidavyne. **Ab. MM 20, 444 (No. 110).**

A davyne in which potassium is absent. Also called natrodavyne.

Alkali-femaghastingsite. **Ab. MM 22, 614 (No. 134).**

A type of hastingsite rich in alkalies and in which FeO more than equals MgO, but is less than double.

Alkali-ferrohastingsite. **Ab. MM 22, 614 (No. 134).**

A type of hastingsite rich in both iron and alkalies.

Alkali-garnet. **Ab. MM 13, 363 (No. 62).**

"A general term for members of the sodalite group, these being closely related crystallographically and chemically to the true garnets."

Alkali-hastingsite. **AM 13, 294–296 (July 1928). Ab. MM 22, 614 (No. 134). MA 4, 39.**

A type of hastingsite in which the percentage of the alkalies is much greater than in other varieties. Massachusetts; New Hampshire; etc.

Alkali-spinel. **Ab. AM 12, 232 (May 1927). MA 2, 185. Ab. MM 20, 445 (No. 110).**

Isometric. Minute octahedrons. Black or dark green. G 3.683. A variety of spinel containing small amounts of alkalies; Na_2O, 1.38% and K_2O, 1.31%. Mansjö Mt., northern Sweden.

Alkanasul. **Ab. AM 17, 495 (Oct. 1932). Ab. MM 23, 624 (No. 146). MA 5, 200. CA 26, 1879.**

Massive. Yellowish white to bluish gray. H 4.5. G 2.92. A hydrous basic sulfate of aluminum, potassium, and sodium. $K_2SO_4.Na_2SO_4.2Al_2(SO_4)_3.6Al(OH)_3.6H_2O$. Evidently identical with natroalunite. Near Salamanca, Chile.

Allcharite. **Ap. III, 2. Ab. MM 16, 352 (No. 77). CA 7, 750.**

Orthorhombic. Small acicular crystals, resembling stibnite, on realgar and orpiment. Chemical composition unknown. Allchar, Macedonia.

Alleghanyite. **DT 600. AM 17, 1 (Jan. 1932); 18, 518 (Dec. 1933), and 20, 25–35 (Jan. 1935). MA 5, 50; 6, 144. Ab. MM 23, 624 (No. 146). CA 26, 4773.**

Monoclinic. Rounded crystals and grains. Pink. H 5.5. G 4.02. A basic fluosilicate of manganese. $2Mn_2SiO_4.Mn(OH, F)_2$. Bald Knob, Alleghany County, North Carolina; Colorado.

Allingite. **Ap. I, 2. Ab. MM 12, 378 (No. 58).**

A fossil resin related to amber (succinite). Switzerland.

Allodelphite. **Ab. AM 16, 230 (May 1931). MA 4, 496. Ab. MM 22, 614 (No. 134). CA 25, 1767.**

Probably orthorhombic. Tabular, elongated crystals. Red-brown. G 3.573. A hydrous silico-arsenite of manganese and minor bases. $5MnO.2(Mn,Al)_2O_3.As_2O_3.SiO_2.5H_2O$. Langban, Sweden.

Allophanite. **MA 2, 470. CA 10, 162.**

Amorphous. White. H 3. G 1.88–1.90. A hydrous aluminum silicate. Near Salt Lake City, Utah.

Allophanoids. **Ab. MM 16, 353 (No. 77). CA 6, 972.**

Clays of the allophane, halloysite, and montmorillonite groups.

Almashite. **Ab. MM 22, 614 (No. 134). MA 4, 297. CA 25, 3227.**

Green or black varieties of amber from Almash Valley, Moravia; Rumania.

Almeraite. **MA 2, 116. Ab. MM 20, 445 (No. 110). CA 18, 33.**

Crystalline granular aggregate. Reddish. A hydrous chloride of potassium, sodium, and magnesium, allied to carnallite. $KCl.NaCl.MgCl_2.H_2O$. Suria, Province of Barcelona, Spain. Not to be confused with almeriite (calafatite).

Almeriite. **Ap. III, 2. DT 770. Ab. MM 16, 353 (No. 77).**
Compact. White. Resembles halloysite. A basic hydrous sulfate of aluminum and sodium. $Al_2(SO_4)_3.Na_2SO_4.5Al(OH)_3.H_2O$. Same as calafatite, with sodium in place of potassium. Almeria, Spain.

Aloisiite. **Ap. II, 3. DT 639. Ab. MM 15, 415 (No. 72). CA 2, 3220.**
A cement in tuff. Amorphous. Brown to violet. A hydrous silicate of calcium, ferrous iron, magnesium, and sodium. $(R'', R'_2)_4SiO_6$. Fort Portal, Uganda, East Africa.

Aloite. **CA 3, 1974.**
Dense, soft moss. Dark blood-red. A hydrous vanadium oxide. $V_2O_5.H_2O$. Tyuya-Muyun Ferghana district, Russian Turkestan.

Alomite. **Ab. MM 15, 416 (No. 72).**
Trade name of the blue sodalite rock, quarried at Bancroft, Ontario, Canada.

Aloxite. **Ab. MM 17, 344 (No. 82).**
Trade name of a form of fused, crystalline alumina, or artificial corundum; used as an abrasive.

Alpha-argentite. **CA 22, 2903.**
The isometric modification of argentite, Ag_2S, existing above 179°.

Alpha-ascharite. **Ab. AM 23, 294 (Apr. 1938).**
Same as ascharite, Germany.

Alpha-carnegieite. **MA 5, 185.**
Isometric. Rounded grains. A sodium-anorthite, $NaAlSiO_4$, produced by heating nepheline to 1248°. It can be preserved by quenching at temperatures above 690°, at which point it passes into beta-carnegieite.

Alpha-catapleite. **CA 19, 228.**
The orthorhombic form of catapleite. Narsarsuk, Greenland.

Alpha-celsian. **MA 5, 102.**
Hexagonal prisms. Uniaxial, negative. G 3.299. A silicate of aluminum and barium. $BaAl_2Si_2O_8$. An artificial feldspar, similar to anorthite, but containing barium instead of calcium.

Alpha-chloritite. Ap. III, 2. Ab. MM 17, 347 (No. 82).

Scaly. G 2.63. A hydrous silicate of aluminum. $4Al_2O_3.5SiO_2.7H_2O$. Donetz Basin, southeastern Russia.

Alpha-chrysotile. AM 21, 48–54 (Jan. 1936). MA 6, 259.

"The most widely distributed form of chrysotile and the one most generally used industrially."

Alpha-copiapite. CA 6, 61.

A basic hydrous sulfate of iron. $(HO)_2Fe_4(SO_4)_5.17H_2O$.

Alpha-corundum. CA 22, 4414.

"A closely packed corundum with n 1.768, O at. vol. 14.05 cubic A.U."

Alpha-cristobalite. MA 5, 177.

Pseudoisometric, orthorhombic. The low-temperature form of silica, SiO_2, stable below about 230°.

Alpha-dahllite. CA 7, 3944.

A calcium carbonate phosphate. A variety of dahllite.

Alpha-hopeite. MM 15, 12 (No. 68). DT 719.

Distinguished from beta-hopeite by higher birefringence, polarizing in bright colors, wider optic axial angle and the interference figure with several brightly colored rings. Broken Hill, Northern Rhodesia.

Alpha-hyblite. DT 612. AM 12, 371–372 (Oct. 1927). MA 3, 367. Ab. MM 21, 565 (No. 122). CA 22, 2904.

Isotropic. Porcelain-white. Hydrous basic sulfosilicate of thorium with some uranium, iron, and lead. An alteration product of thorite. Hybla, Ontario, Canada.

Alpha-kertschenite. Ap. III, 2.

An alteration product of vivianite. $5RO.2Fe_2O_3.3P_2O_5.23H_2O$, with R = Fe, Mn, Mg. Kertsch, Crimea, Russia.

Alpha-kliachite. Ab. MM 15, 424 (No. 72).

Colloidal aluminum hydroxide. $Al_2O_3.H_2O$. One of the constituents of bauxite.

Alpha-leonhardite. DT 649. MA 2, 299.

A primary laumontite which has lost all but one molecule of its water.

Alpha-metavoltine. CA 22, 47; 30, 8086.

An unstable hexagonal modification of metavoltine.

Alpha-palygorskite. CA 2, 1404; 10, 581.

A fibrous, hydrous aluminosilicate of magnesium. $H_8Mg_2Si_3O_{12} + 2(H_2Al_2Si_4O_{12}.5H_2O)$, or one molecule of parasepiolite and two of paramontmorillonite. Same as lasallite.

Alpha-pilolite. CA 10, 581.

An irregularly matted, fibrous asbestus. A hydrous silicate of magnesium and aluminum. $H_{26}Mg_4Al_2(SiO_4)_{10}$. A member of the palygorskite group.

Alpha-quartz. Ap. III, 66. DT 471.

A form of quartz, apparently hexagonal, trapezohedral tetartohedral, formed at temperatures below 573° occurs in veins, geodes, and large pegmatites.

Alpha-quercyite. Ap. III, 66.

A mixture of amorphous collophanite with optically negative, fibrous phosphates corresponding to dahllite, staffelite, and francolite. Quercy and other French phosphate deposits.

Alpha-rathite. Ap. III, 67. MM 16, 121 (No. 74). CA 6, 465.

Identical with wiltshireite.

Alpha-sepiolite. DT 679. CA 8, 2862.

Same as parasepiolite.

Alpha-uranopilite. Ab. AM 20, 813 (Nov. 1935).

Grayish, dirty green. A lower hydrate of uranopilite. $6UO_3.SO_3.10H_2O$.

Alpha-uranotil. Ab. AM 20, 813 (Nov. 1935).

Crystals. Yellow-green. G 3.953. A hydrous silicate of calcium and uranium. $CaO.2UO_3.2SiO_2.6H_2O$. Jáchymov, Bohemia.

Alpha-uzbekite. DT 715. Ab. AM 14, 79 (Feb. 1929). CA 24, 41.

Crusts of fine needles. Dark green. A basic vanadate of copper. $2CuO.V_2O_5.3H_2O$. Ferghana, Russian Turkestan.

Alpha-wiikite. Ab. AM 22, 1131 (Nov. 1937). MA 6, 478.

One of the constituent portions of the isomorphous mixture known as wiikite. It is a hydrous niobate of calcium and uranium. $Ca_3U(HNbO_5)_3$. Impilaks, Finland.

Aluminum-epidote. **AM 12, 222 (May 1927). Ab. MM 20, 446 (No. 110).**

Monoclinic. A basic orthosilicate of calcium and aluminum. $HCa_2Al_3Si_3O_{13}$. One of the two isomorphous molecules that enter into the composition of epidote. Identical with clinozoisite.

Alumo-chalcosiderite. **Ab. AM 19, 36 (Jan. 1934). MA 5, 391. Ab. MM 23, 624 (No. 146). CA 28, 6398.**

Crystalline balls or crusts. Grass to bluish green. A hydrous phosphate of copper, iron, and aluminum. $CuAl_2Fe_4(PO_4)_4.(OH)_8.5H_2O$. A variety of chalcosiderite containing some Al_2O_3 replacing Fe_2O_3. Schneckenstein, Saxony.

Alumochromite. **Ab. MM 24, 601 (No. 158). CA 32, 885.**

A member of the spinel group. An aluminate and chromate of iron. $Fe(Cr,Al)_2O_4$.

Alumogel. **DT 506. Ab. MM 17, 344 (No. 82).**

"Amorphous aluminum hydroxide, of indefinite composition, forming the main constituent of bauxite." Also called sporogelite, diasporogelite, cliachite.

Alumohydrocalcite. **DT 529. Ab. AM 13, 569 (Nov. 1928). Ab. MM 21, 557 (No. 122). CA 22, 4413.**

Monoclinic. Chalky masses consisting of radially fibrous spherulites. White, pale blue, etc. H 2.5. G 2.231. A hydrous carbonate of calcium and aluminum. $CaO.Al_2O_3.2CO_2.5H_2O$. Khakassky district, Siberia.

Alumopharmacosiderite. **Ab. MM 24, 602 (No. 158). CA 32, 888.**

Artificially prepared cubic crystals of $Al_3(AsO_4)_2(OH)_3.5H_2O$, or perhaps $Al_5As_3O_{12}(OH)_6.6H_2O$, analogous to pharmacosiderite with aluminum in place of iron.

Alumotrichite. **Ab. MM 12, 378 (No. 58).**

A white, fibrous alum, probably identical with kalinite. Chile.

Alumyte. **Ap. II, 3. Ab. MM 12, 378 (No. 58).**

Alum-clay (bauxite) from County Antrim, Ireland.

Alundum. **DT 482. Ab. MM 15, 416 (No. 72).**

Trade name of artificial corundum made from bauxite; used as an abrasive.

Alushtite. **DT 681. Ab. MM 20, 446 (No. 110).**

Crusts, nests, veins in quartz veins. Kaolin-like. Bluish, greenish. A hydrous aluminum silicate, containing 13.7% water and a little magnesia. Near Alushta, Crimea, Russia.

Amargosite. **Ab. MM 21, 557 (No. 122). MA 3, 144.**

Trade name of a bentonite clay from Amargosa River, California. "It is commonly known as natural soap, or soap rock." A hydrous silicate of magnesium and aluminum. $MgO.Al_2O_3.5SiO_2.7H_2O$. Same as montmorillonite.

Amarillite. **Ab. AM 19, 287 (June 1934); 21, 270 (Apr. 1936). MA 5, 390. Ab. MM 23, 624 (No. 146). CA 28, 729.**

Monoclinic. Crystals. Pale greenish yellow. A hydrous sulfate of sodium and ferric iron. $Na_2O.Fe_2O_3.4SO_3.12H_2O$. Analogous to tamarugite, DS No. 767. Tierra Amarilla, Chile.

Amatrice. **Ab. MM 15, 416 (No. 72). CA 3, 2665.**

Trade name for a green gem stone consisting chiefly of variscite in a matrix of quartz, etc. Utah.

Ambatoarinite. **DT 526. AM 5, 15 (Jan. 1920). MA 1, 148. Ab. MM 18, 373 (No. 87). CA 10, 2450.**

Orthorhombic (?). Skeleton-like groups of crystals. Pink to black. A carbonate of strontium and the rare earths. $5SrCO_3.4(Ce,La,Di)_2(CO_3)_3.(Ce,La,Di)_2O_3$. Ambatoarina, Madagascar.

Amberine. **Ab. MM 17, 344 (No. 82).**

A local trade name of a yellowish green chalcedony from Death Valley, California.

Ameletite. **DT 589. Ab. AM 15, 202 (May 1930). MM 22, 174–178 (No. 127). Ab. MM 22, 615 (No. 134). CA 24, 1320.**

Hexagonal. Grains and minute crystals. "Sodium aluminosilicate loosely combined with sodium chloride." $6Al_2O_3.9Na_2O.12SiO_2.\frac{1}{2}NaCl$. Dunedin, New Zealand; and Oceanica.

Amianthinite. **Ab. MM 13, 363 (No. 62).**

An asbestiform actinolite.

Aminoffite. **Ab. AM 23, 293 (Apr. 1938). CA 32, 1619.**

Tetragonal. Small crystals. Colorless. H 5.5. G 2.94. A hydrous silicate of calcium, beryllium, and aluminum. $Ca_{24}Be_9Al_3Si_{24}O_{84}(OH)_3.12H_2O$. Langban, Sweden.

Ammonioborite. **AM 16, 114 (Mar. 1931); 18, 480–492 (Nov. 1933). Ab. MM 22, 615 (No. 134). MA 5, 146 and 391; 6, 153. CA 28, 1958; 30, 6676.**

Monoclinic or triclinic. Aggregates of minute plates. A hydrous borate of ammonium. $(NH_4)_2O.5B_2O_3.5H_2O$. Differs optically from larderellite, which has the same composition. Larderello, Tuscany, Italy.

Ammoniojarosite. **DT 769. AM 12, 424–426 (Dec. 1927). MA 3, 470. Ab. MM 21, 557 (No. 122). CA 22, 2906.**

Rhombohedral. Lumps of tabular grains. Pale yellow. Hydrous sulfate of ammonium and ferric iron. $(NH_4)_2Fe_6(OH)_{12}(SO_4)_4$. West side of Kaibab fault, Southern Utah.

Amosite. **DT 570. Ab. AM 5, 16 (Jan. 1920). AM 13, 241–285 (July 1928). MA 1, 271. Ab. MM 18, 373 (No. 87). CA 23, 1082.**

Orthorhombic. Fibrous. Ash-gray. An anthophyllite asbestus, near ferroanthophyllite. Approximately $(Fe,Mg,Ca)O.SiO_2.xH_2O$. Lydenburg and elsewhere in the Transvaal, South Africa.

Ampangabeite. **Ap. III, 3. DT 698. Ab. MM 16, 353 (No. 77). CA 7, 2918.**

Orthorhombic (?). Rectangular prisms. Brownish red. H 4. G 3.97–4.29. A tantalo-niobate (and titanate) of uranium, iron, yttrium, etc. Ambatofotsikely, Madagascar.

Analbite. **Ab. AM 11, 138 (May 1926). MA 3, 78. Ab. MM 21, 557 (No. 122).**

Anorthoclase with less than 10% $KAlSi_3O_8$.

Analcidite. **Ab. MM 14, 394 (No. 67).**

"The more correct name of analcite." Analcime has, however, been adopted as the official name of the species.

Anapäite. **Ap. II, 5. DT 720. Ab. MM 13, 363 (No. 62). CA 31, 6144.**

Triclinic. Crusts of tabular crystals on limonite. Greenish white. H 3.5. G 2.81–2.85. A hydrous phosphate of calcium and iron. $(Ca,Fe)_3(PO_4)_2.4H_2O$. Anapa, Black Sea, Russia.

Ancylite. **Ap. II, 5. DT 526. Ab. MM 12, 379 (No. 58).**

Orthorhombic. Small, curved pyramidal crystals. Yellow, etc. H 4.5. G 3.95. A hydrous carbonate of cerium and

strontium. $4Ce(OH)CO_3.3SrCO_3.3H_2O$. Narsarsuk, Greenland; Kola Peninsula, Russian Lapland.

Andeclase. **Ab. AM 11, 138 (May 1926). Ab. MM 21, 557 (No. 122).**
A contraction of andesine-oligoclase. Plagioclase feldspars ranging in composition from $Ab_{70}An_{30}$ to $Ab_{60}An_{40}$.

Andorite. **Ap. I, 4; II, 6. DT 446. MA 3, 506. MM 11, 286–301 (No. 53). Ab. MM 11, 323 (No. 53). CA 1, 2786.**
Orthorhombic. Crystals prismatic. Dark steel-gray. H 3.25. G 5.35. A sulfantimonite of lead and silver. $2PbS.Ag_2S.3Sb_2S_3$. Felsöbánya, Rumania; Oruro, Bolivia. Sundtite and webnerite are identical with andorite.

Anemolite. **Ab. MM 13, 363 (No. 62).**
An upturned form of calcite stalactite, form stated to be due to air currents. England.

Anemousite. **Ap. III, 5. DT 549. Ab. MM 15, 416 (No. 72). MA 4, 398 and 508. CA 29, 5779.**
Triclinic. Loose crystals in volcanic tuff. G 2.68. A plagioclase feldspar. A silicate of aluminum, calcium, and sodium. $Na_2O.2CaO.3Al_2O_3.9SiO_2$. Explained as a mixture of albite and anorthite together with carnegieite in ratio 8:10:1. Suggested (MA 5, 102) that it may be labradorite. "Name should be stricken from the literature." Island of Linosa, Italy.

Angaralite. **Ap. III, 5. DT 634. Ab. MM 17, 344 (No. 82).**
Hexagonal (?). Thin, tabular crystals. Black. G 2.619. A silicate of aluminum, magnesium, and iron. $2MgO.5(Al, Fe)_2O_3.6SiO_2$. Angara River, Siberia.

Angelardite. **Ap. III, 6. Ab. MM 16, 353 (No. 77). CA 8, 3172.**
Corrected form of anglarite, so named after the locality, Angelard (not Anglar), France. It is a massive, blue variety of vivianite, DS p. 816.

Angleso-barite. **Ap. III, 6. Ab. MM 16, 353 (No. 77).**
Same as hokutolite.

Angolite. **Ab. MM 12, 379 (No. 58).**
Triclinic. A hydrous silicate of manganese. $H_2Mn_3(SiO_3)_4.H_2O$. Probably a zeolite. One of the ingredients of Breithaupt's manganocalcite from Schemnitz, Bohemia.

Anhydrobiotite. Ab. MM 20, 446 (No. 110).
Artificially dehydrated biotite.

Anhydrokainite. AM 8, 186 (Oct. 1923). Ab. MM 19, 334 (No. 98).
"Anhydrous chloride and sulfate of potassium and magnesium. $KMgClSO_4$. Produced by the dehydration of kainite by the intrusion of basalt into the Prussian salt deposits." Also called basaltkainite.

Anhydrokaolin. MA 5, 361. Ab. MM 23, 625 (No. 146). CA 27, 1595.
Artificially dehydrated kaolin, which passes with change of volume to metakaolin.

Anhydromuscovite. Ab. MM 20, 446 (No. 110).
Artificially dehydrated muscovite.

Anophorite. Ap. III, 6. Ab. MM 15, 416 (No. 72). CA 5, 1247.
An alkali hornblende, near cataphorite, but containing more MgO and less FeO. Katzenbuckel, Baden, Germany.

Anorthite-haüyne. Ab. MM 22, 615 (No. 134). MA 4, 355.
"A hypothetical molecule, $3CaAl_2Si_2O_8.2CaSO_4$, corresponding with haüyne, $3Na_2Al_2Si_2O_8.2CaSO_4$, to explain the composition of the sodalite group. The first part of this molecule has the composition of anorthite, hence the name."

Anorthoclase-sanidine. Ab. MM 22, 615 (No. 134).
"A feldspar from the Drachenfels, Rhineland, Germany, with the tabular habit of sanidine, but the optical extinction of anorthoclase."

Ansilite. Ap. II, 7. Ab. MM 14, 394 (No. 67).
See ancylite.

Antamokite. Ab. AM 13, 491 (Sept. 1928). Ab. MM 22, 615 (No. 134). MA 4, 250. CA 23, 1081.
A telluride of gold with a trace of silver. Bluish grayish white. H probably 2–3. Antamok, Philippines.

Anthracene. Ab. MM 24, 602 (No. 158). MA 6, 357.
"An organic compound ($C_{14}H_{10}$) formed by the burning of pyritiferous shale in Bohemia."

Antiglaucophane. Ab. MM 23, 625 (No. 146). CA 31, 6141.
Like glaucophane, but differing somewhat in its optical characters.

Antimoniferous arsenic. **AM 6, 99 (June 1921). CA 15, 2602.**
Name proposed for allemontite.

Antimon-luzonite. **Ap. II, 7. Ab. MM 13, 364 (No. 62).**
Massive. Reddish. G 4.47. A sulf-arsen-antimonate of copper. $Cu_3(As,Sb)S_4$. Identical with famatinite, or intermediate between it and luzonite. Caudalosa mine, Peru.

Antimonpyrochlore. **MA 5, 185. Ab. MM 23, 625 (No. 146).**
An antimoniferous variety of pyrochlore. Includes romeite, atopite, schneebergite, weslienite.

Antiperthite. **Ab. MM 14, 394 (No. 67). CA 24, 40.**
Regular intergrowths of two feldspars in which orthoclase is the enclosed mineral and plagioclase the host; being the reverse of microperthite.

Antofagastite. **AM 23, 85–90 (Feb. 1938). MA 7, 59. CA 32, 2461.**
Orthorhombic. Lichen-like splotches on rock. Bluish green. H 2.5. G 2.4. A hydrous copper chloride. $CuCl_2.2H_2O$. Mina Quetena, Calama, Province of Antofagasta, Chile.

Apricotine. **Ab. MM 18, 374 (No. 87).**
Trade name of yellowish red, apricot-colored quartz pebbles from near Cape May, New Jersey, used as gem stones.

Arakawaite. **DT 729. Ab. AM 8, 37 (Feb. 1923); 13, 493 (Sept. 1928). Ab. MM 19, 334 (No. 98). MA 1, 250; 2, 380; 5, 94. CA 19, 2005.**
Monoclinic. Crystals. Blue, green. H 3.5. G 3.09. A basic hydrous phosphate of copper and zinc. $6(Cu,Zn)O.P_2O_5.7H_2O$. Arakawa mine, near Akita, Japan. Kipushite from Belgian Congo is identical.

Aramayoite. **DT 447. Ab. AM 12, 265 (June 1927). MA 3, 269. MM 21, 156–168 (No. 115). Ab. MM 21, 557 (No. 122). CA 21, 2241.**
Triclinic. Iron-black. H 2.5. G 5.602. A silver sulfantimonite and sulfobismuthite. $Ag_2S.(Sb,Bi)_2S_3$. Animas mine, Chocaya, Bolivia.

Arandisite. **DT 633. Ab. AM 15, 274 (July 1930). MA 4, 248. Ab. MM 22, 615 (No. 134).**
Colloidal and crystalline fibrous. Apple-green. H 5. G 4.12. A basic hydrous silicate of tin. $3SnSiO_4.2SnO_2.4H_2O$. Arandis, South West Africa.

Ardealite. **Ab. AM 17, 251 (June 1932). MA 5, 49. Ab. MM 23, 625 (No. 146). CA 26, 2673.**

Fine powdery; minutely crystallized. White or light yellow. G 2.300. A hydrous double salt of calcium sulfate and acid phosphate. $CaHPO_4.CaSO_4.4H_2O$. Transylvania.

Ardmorite. **Ab. MM 21, 557 (No. 122).**

Trade name of a bentonite-clay from Ardmore, South Dakota.

Arduinite. **Ap. III, 8. DT 652. Ab. MM 16, 353 (No. 77). CA 9, 3194.**

Probably orthorhombic. A radiating fibrous zeolite. Red. G 2.26. A hydrous silicate of sodium, calcium, and aluminum. $H_{16}Na_4CaAl_2Si_8O_{30}$. Val dei Zuccanti, Italy.

Argentoalgodonite. **Ap. II, 2. Ab. MM 14, 394 (No. 67).**

An artificial copper arsenide containing some silver. $(Cu, Ag)_6As$.

Argentodomeykite. **Ap. II, 36 and 9. Ab. MM 14, 394 (No. 67).**

Hexagonal. Artificial copper-silver arsenide. $(Cu,Ag)_3As$.

Argentojarosite. **DT 769. Ab. AM 8, 230 (Dec. 1923). MA 2, 148. Ab. MM 20, 446 (No. 110). CA 17, 2548.**

Hexagonal. Small scales. Yellow, brown. A hydrous basic sulfate of iron and silver. $Ag_2Fe_6(OH)_{12}(SO_4)_4$. Dividend, Utah.

Argentopercylite. **Ap. II, 9. Ab. MM 12, 379 (No. 58).**

Same as boléite.

Arizonite. **Ap. III, 8. DT 693. Ab. MM 15, 416 (No. 72). CA 3, 2788.**

Monoclinic (?). Rough crystals and masses. Dark steel-gray. H 5.5. G 4.25. A metatitanate of ferric iron. $Fe_2O_3.3TiO_2$. Hackberry, Arizona.

Armangite. **DT 702. Ab. AM 6, 64 (Mar. 1921). Ab. MM 19, 334 (No. 98). MA 1, 124; 5, 322. CA 15, 490.**

Rhombohedral. Prismatic. Black. H 4. G 4.23. A manganese arsenite. $Mn_3(AsO_3)_2$. Langban, Sweden.

Arrojadite. **DT 711. Ab. AM 12, 355 (Sept. 1927). MA 3, 113. Ab. MM 21, 558 (No. 122). CA 20, 3668.**

Monoclinic. Cleavable massive. Dark green. H over 5. A phosphate of iron, manganese, etc. $4R'_3PO_4.9R''_3P_2O_8$. Picuhy, Brazil; Black Hills, South Dakota. See DS p. 758.

Arsenioardennite. **AM 12, 222 (May 1927). MA 2, 44. Ab. MM 20, 446 (No. 110). CA 16, 3837.**

The arsenical end member of the ardennite series as distinguished from vanadioardennite, in which vanadium predominates.

Arsenobismite. **DT 736. AM 1, 13 (July 1916). Ab. MM 18, 374 (No. 87). MA 1, 255. CA 10, 441.**

Cryptocrystalline aggregates. Yellowish green. H 3. G 5.70. A hydrous bismuth arsenate. $2Bi_2O_3.As_2O_5.2H_2O$. Tintic district, Utah.

Arsenoclasite. **DT 711. Ab. AM 17, 251 (June 1932). MA 4, 496. Ab. MM 22, 615 (No. 134). CA 26, 398.**

Orthorhombic. Cleavable. Red. H 5–6. G 4.161. A basic hydrous arsenate of manganese. $Mn_3(AsO_4)_2.2Mn(OH)_2$. Langban, Sweden.

Arsenoferrite. **Ap. III, 8. DT 435. Ab. MM 16, 353 (No. 77). CA 7, 47; 25, 1763.**

Isometric. Small pyritohedral crystals. Dark brown. H 5.5. G 6.42. Iron diarsenide. $FeAs_2$. Binnenthal, Switzerland; Jáchymov, Bohemia.

Arsenoklasite. **Ab. MM 22, 615 (No. 134). MA 4, 496.**

See arsenoclasite.

Arsenomarcasite. **AM 15, 567 (Dec. 1930). Ab. MM 22, 616 (No. 134).**

Suggested as a more suitable name for arsenopyrite, the mineral being orthorhombic, not isometric.

Arsenomiargyrite. **Ab. MM 16, 353 (No. 77).**

"The artificially produced sulfarsenite of silver, $AgAsS_2$, corresponding with the sulfantimonite, miargyrite. No doubt identical with smithite.

Arsenostibite. **Ab. AM 22, 1131 (Nov. 1937). Ab. MM 24, 602 (No. 158). MA 6, 487. CA 32, 885.**

Isotropic. A porous coating on allemontite. Sulfur-yellow. A hydrous oxide of antimony and arsenic. $3(Sb,As)_2O_3.5(Sb,As)_2O_5.25H_2O$. Varuträsk, Sweden.

Arsenpolybasite. **Ab. MM 12, 379 (No. 58).**

Arsenical polybasite; same as pearceite.

Arsenschwefel. **Ap. II, 9.**

Tetragonal (?). Granular crystalline aggregates. Blue-gray. A sulfide of arsenic, with water. $As_2S_3.H_2O$. Pozzuoli, near Naples, Italy.

Arsenstibite. **MM 24, 602 (No. 158).**

Same as arsenostibite.

Arsensulfurite. **Ap. II, 9. Ab. MM 13, 364 (No. 62).**

Amorphous crusts. Brownish red. A variety of sulfur containing much arsenic (29.22%). Volcano of Papandajan, Java; near Naples, Italy. Jeromite is similar.

Arsentsumebite. **Ab. MM 24, 602 (No. 158). CA 32, 888.**

A variety of tsumebite containing some arsenate in place of phosphate of lead and copper. Tsumeb, South West Africa.

Artinite. **Ap. II, 9. DT 531. Ab. MM 13, 364 (No. 62). MA 5, 47. CA 24, 3729.**

Orthorhombic. Loose spherical aggregates of scales, composed of minute prismatic crystals. Snow-white. H 2. G 2.028. A basic hydrous carbonate of magnesium. $MgCO_3.Mg(OH)_2.3H_2O$. Lombardy and Piedmont, Italy; Hoboken, New Jersey.

Arzrunite. **Ap. II, 9. Ab. MM 12, 308 (No. 57) and 12, 379 (No. 58).**

Orthorhombic. A drusy incrustation of small prisms. Blue-green. A double salt of basic lead sulfate and a basic copper chloride. $PbSO_4.PbO.3(CuCl_2.H_2O).Cu(OH)_2$. Challacollo, Tarapaca, Chile.

Ascharite. **Ap. I, 6. DT 742. Ab. MM 11, 323 (No. 53). MA 6, 336; 6, 472. CA 1, 2864.**

Orthorhombic (?). Fibrous lumps. White. G 2.7. A hydrous borate of magnesium. $Mg_2B_2O_5.H_2O$. Near Aschersleben, Germany; Siberia.

Ashcroftine. **Ab. AM 18, 78 (Feb. 1933); 18, 358 (Aug. 1933). MM 23, 305–308 (No. 140). Ab. MM 23, 625 (No. 146). CA 27, 2910.**

Tetragonal. Small needles. Pink. G 2.61. A hydrous silicate of sodium, potassium, calcium, magnesium, manganese, and aluminum. $NaK(Ca,Mg,Mn)Al_4Si_5O_{18}.8H_2O$. Narsarsuk, Greenland. Formerly called kalithomsonite.

Ashtonite. **Ab. AM 17, 120 (Mar. 1932). MA 5, 50. Ab. MM 23, 625 (No. 146).**

Orthorhombic (?). Radiating masses. Colorless to brick-red. A hydrous silicate of aluminum, calcium, and sodium. $2(Ca,Na_2)O.Al_2O_3.9SiO_2.5H_2O$. A zeolite related to ptilolite. Penicton, British Columbia.

Asovskite. **MA 7, 59. CA 32, 2873.**

Veins, nodules, shells. Dark brown. H 4. G 2.5. A hydrous phosphate of iron. $P_2O_5.3Fe_2O_3.6H_2O$. Analogous to evansite. Taman shore, Sea of Azov, Crimea, Russia.

Asphaltite. **Ab. MM 15, 417 (No. 72).**

Same as asphaltum.

Astridite. **Ab. MM 24, 602 (No. 158). MA 6, 502.**

An ornamental stone, consisting mainly of chromojadeite. Manokwari, New Guinea.

Astrolite. **Ap. II, 10. DT 582. Ab. MM 14, 394 (No. 67).**

Orthorhombic. Small spheres with radiated structure. Siskin-green. H 3.5. G 2.78. A silicate of iron, aluminum, potassium, and sodium $(Al,Fe)_2Fe''(Na,K)_2(SiO_3)_5.H_2O$. Neumark, Saxon Vogtland, Germany.

Attapulgite. **MA 6, 150 and 346. MM 24, 602 (No. 158).**

A light green absorbent fuller's earth. A basic hydrous silicate of magnesium and aluminum. $(OH)_2.H_2(Mg,Al_{4/3}).Si_3H_4O_{10}$. Attapulgus, Georgia; France.

Augite-bronzite. **Ab. MM 15, 420 (No. 72). CA 1, 2072.**

One of a group of pyroxenes intermediate between bronzite and the calcium-bearing monoclinic pyroxenes.

Aurobismuthinite. **DT 411. Ab. MM 17, 344 (No. 82).**

Cleavable massive. Lead-gray. A doubtful sulfide containing bismuth, gold, and silver. It may be a mixture of $(Bi,Au,Ag_2)S$, or possibly of a gold-silver alloy, and bismuthinite, Bi_2S_3. Nacozari, Sonora, Mexico.

Aurosmirid. **Ab. AM 20, 740 (Oct. 1935). MA 6, 51. CA 29, 2117.**

Isometric. Grains. Silver-white. H 7. G 20. A solid solution of gold and osmium in cubic iridium (as distinct from a solid solution of iridium, etc., in hexagonal osmium). Ir 51.7, Os 25.5, Ru 3.5, Au 19.3. Urals.

Austinite. AM 20, 112–119 (Feb. 1935); 23, 347–349 (May 1938). MA 6, 53. CA 29, 6539.

Orthorhombic. Minute, bladed or scepter-like crystals. Colorless. G about 4.12. A basic arsenate of zinc and calcium. $CaZn(OH)AsO_4$. Gold Hill, Utah. Brickerite is identical.

Auxite. AM 5, 15 (Jan. 1920). Ab. MM 18, 374 (No. 87).

Same as lucianite.

Avogadrite. DT 466. Ab. AM 12, 232 (May 1927). MA 3, 238. Ab. MM 21, 558 (No. 122). CA 20, 3275.

Orthorhombic. Minute, tabular, eight-sided crystals. G 2.505. A boro-fluoride of potassium and caesium. $(K,Cs)BF_4$. Vesuvius, Italy. Tests by Carobbi (MA 3, 238) show G 2.498 and suggest that pure avogadrite is KBF_4.

Azurchalcedony. Ab. MM 15, 417 (No. 72).

Chalcedony colored blue by chrysocolla; used as a gem stone. Arizona. Same as azurlite.

Azurlite. Ab. MM 15, 417 (No. 72).

Same as azurchalcedony.

Azurmalachite. Ab. MM 15, 417 (No. 72).

A popular term for a mixture of azurite and malachite in concentric bands. Arizona.

B

Bababudanite. Ap. III, 10. DT 578. MA 6, 212. Ab. MM 16, 354 (No. 77). CA 6, 1117; 30, 4123.

Monoclinic. Acicular crystals. Black. G 3.31. A soda-amphibole allied to rhodusite (a variety of glaucophane). A silicate of sodium, iron, magnesium, and calcium. $2Na_2Fe_2Si_4O_{12}.5(Mg,Fe,H_2,Ca)SiO_3$. Bababudan Hills, Mysore, India.

Babylonian quartz. Ab. MM 14, 395 (No. 67).

Same as babel-quartz.

Bacalite. Ab. AM 21, 269 (Apr. 1936). MA 6, 503. CA 31, 6159.

An amber. Yellow to nearly white. H 2.5. G 1.05. Contains a little succinic acid. Lower (Baja) California, Mexico. Not to be confused with the artificial bakelite.

Bäckströmite. DT 508. Ab. AM 5, 88 (Apr. 1920). MA 1, 3. Ab. MM 19, 334 (No. 98).

Orthorhombic. Prismatic crystals. Black. Manganese hydroxide. $Mn(OH)_2$. Langban, Sweden.

Baddeckite. Ap. I, 7. DT 662. Ab. MM 12, 379 (No. 58). MA 3, 215.

Originally described as a copper-red, highly ferruginous variety of muscovite. Later proved to be a mixture of hematite scales and clay. Baddeck, Nova Scotia.

Baddeleyite. Ap. I, 8; II, 11. DT 500. MM 10, 148–160 (No. 46). Ab. MM 11, 110 (No. 50); 11, 323 (No. 53). MM 14, 378–384 (No. 67); 21, 169–175 (No. 115). CA 1, 2787.

Monoclinic. Tabular crystals, also nodules. Colorless, yellow, brown, black. H 6.5. G 5.5–5.82. Zirconium dioxide (with some hafnium oxide). ZrO_2. Rakwana, Ceylon; Minas Geraes and Sao Paulo, Brazil; Alnö, Sweden; near Bozeman, Montana. Same as brazilite. See also favas.

Badenite. Ap. II, 12. DT 431. Ab. MM 13, 364 (No. 62).

Massive. Granular, fibrous. Steel-gray. G 7.104. An arsenide and bismuthide of cobalt, nickel, and iron. $(Co,Ni,Fe)_3(As,Bi)_4$.(?). Badeni-Ungureni, Rumania.

Baeckstroemite. Ab. AM 5, 88 (Apr. 1920). CA 14, 1097.

See bäckströmite.

Baeumlerite. Ap. III, 10. DT 464. AM 14, 160 (Apr. 1929). Ab. MM 16, 354 (No. 77). CA 6, 1419 and 2052.

Orthorhombic. Colorless. H about 3. A chloride of potassium and calcium. $KCl.CaCl_2$. Intergrown with halite and tachyhydrite. Identical with chlorocalcite or hydrophilite, DS No. 174. Leinetal, Germany.

Bagotite. Ap. I, 8. Ab. MM 11, 323 (No. 53).

Green pebbles, identified as lintonite (thomsonite). Bagot, Ontario, Canada.

Bakerite. Ap. II, 12. DT 742. MM 13, 353–354 (No. 62). Ab. MM 13, 364 (No. 62).

Compact. Nodular. Resembles unglazed porcelain. White. H 4.5. G 2.7–2.93. A hydrous calcium borosilicate. $8CaO.5B_2O_3.6SiO_2.6H_2O$. Mohave Desert, 16 miles northeast of Daggett, California.

Baldaufite. DT 720. Ab. AM 11, 44 (Feb. 1926). MA 2, 418. Ab. MM 20, 447 (No. 110). CA 19, 2795.

Prismatic crystals. Flesh-red. A hydrous phosphate of iron, manganese, calcium, and magnesium. $(Fe,Mn,Ca,Mg)_3(PO_4)_2.3H_2O$. Hagendorf, Bavaria. Near wenzelite.

Balkhashite. Ab. MM 23, 626 (No. 146).

A rubbery bitumen (elaterite) similar to coorongite, formed by algae in Lake Balkhash, Siberia.

Bandylite. AM 23, 85–90 (Feb. 1938). MA 7, 59. CA 32, 2461.

Tetragonal. Thick, tabular crystals. Deep blue. H 2.5. G 2.810. A hydrous borate and chloride of copper. $CuB_2O_4.CuCl_2.4H_2O$. Calama, Antofagasta, Chile.

Barbierite. Ap. III, 10. DT 537. Ab. MM 16, 354 (No. 77). MA 4, 127. CA 2, 3217; 5, 55; 23, 5131.

A supposed monoclinic form of sodium-orthoclase, $NaAlSi_3O_8$, whose existence is assumed in crystal solution in orthoclase. Barth claims to have found submicroscopic triclinic twin-lamellae from the island of Seiland, Norway, and concludes that no monoclinic form exists.

Bardolite. DT 673. Ab. AM 10, 134 (May 1925). MA 2, 343. Ab. MM 20, 447 (No. 110). CA 18, 2861.

Orthorhombic. Radiated fibrous spherulites. G 2.73. A hydrous silicate of iron, aluminum, magnesium, and potassium. $K_2O.5MgO.FeO.2Fe_2O_3.Al_2O_3.12SiO_2.21H_2O$. Bardo, Central Poland.

Bariohitchcockite. Ab. AM 2, 120 (Sept. 1917). Ab. MM 18, 374 (No. 87).

Wherry's name for georgeixite.

Bariostrontianite. CA 29, 4705.

Same as barystrontianite, DS p. 285.

Barium-anorthite. Ap. I, 8. Ab. MM 11, 324 (No. 53). MM 23, 454 (No. 143). MA 5, 626. CA 28, 993.

Described as a plagioclase feldspar containing 5.5% BaO from Broken Hill, New South Wales. See celsian, which later proved to be monoclinic.

Barium-hamlinite. AM 8, 186 (Oct. 1923). Ab. MM 19, 335 (No. 98). MA 1, 256.

A barium-bearing variety of hamlinite.

Barium-heulandite. **Ap. I, 8. Ab. MM 11, 324 (No. 53).**
A heulandite with 2.55% BaO. Pula, Sardinia.

Barium-muscovite. **AM 18, 30 (Jan. 1933). MA 5, 284. Ab. MM 23, 626 (No. 146).**
A massive, pink variety of muscovite, containing 9.89% BaO. Franklin, New Jersey. Same as oellacherite, DS p. 617.

Barium-nephelite. **MA 2, 153.**
Hexagonal. Plates. An artificial barium alumino-silicate. $BaAl_2Si_2O_8$. Identical in composition with celsian.

Barium-orthoclase. **Ab. MM 14, 395 (No. 67).**
See baryta-orthoclase.

Barium-parisite. **Ab. MM 12, 379 (No. 58).**
Same as cordylite.

Barium-phlogopite. **Ab. AM 14, 440 (Nov. 1929). Ab. MM 21, 558 (No. 122).**
A variety of phlogopite containing 1.28% BaO. Mansjö Mt., Sweden.

Barracanite. **Ap. I, 8. Ab. MM 12, 379 (No. 58).**
Cubanite from Barracanao, Cuba, which yields the formula $CuFe_2S_4$, instead of $CuFe_2S_3$. Cupropyrite is an alternative name.

Barroisite. **DT 576. Ab. AM 11, 167 (June 1926). MA 2, 221. Ab. MM 20, 447 (No. 110). CA 17, 42.**
A dark green amphibole intermediate between hornblende and glaucophane.

Barthite. **Ap. III, 11. DT 727. Ab. MM 17, 345 (No. 82). CA 8, 2862.**
Monoclinic (?). Small crystals. Grass-green. H 3. G 4.19. A basic hydrous arsenate of zinc and copper. $3ZnO.CuO.3As_2O_5.2H_2O$. Guchab, South West Africa.

Baryta-orthoclase. **Ap. II, 13. DT 540. Ab. MM 14, 395 (No. 67).**
A mixture of celsian and orthoclase.

Basalt-kainite. **AM 8, 186 (Oct. 1923). Ab. MM 19, 335 (No. 98).**
See anhydrokainite.

Basilite. **Ap. I, 9. Ab. MM 11, 324 (No. 53).**

Foliated. Steel-blue; blood-red in thin splinters. A hydrous antimonate of manganese. $11(Mn_2O_3,Fe_2O_3).Sb_2O_5.21H_2O$. Sjö mine, Örebro, Sweden.

Basobismutite. **DT 532. Ab. AM 5, 17 (Jan. 1920). AM 6, 14 (Jan. 1921). Ab. MM 18, 374 (No. 87). MA 2, 53.**

Compact. A cement between beryl crystals. Dark gray. A basic bismuth carbonate. $2Bi_2O_3.CO_2.H_2O$. Schorl Mt., Adun-Chalon Range, Transbaikalia.

Bassanite. **Ap. III, 11. DT 753. Ab. MM 16, 354 (No. 77).**

Monoclinic. Crystals with form of gypsum. White. G 2.69–2.76. Anhydrous calcium sulfate. $CaSO_4$. Differs from anhydrite, but is transformed into it at a red heat. Ejected blocks from Vesuvius, Italy, in 1906.

Bassetite. **DT 735. MM 17, 221–236 (No. 81). Ab. MM 17, 345 (No. 82). CA 10, 32.**

Monoclinic. Tabular crystals. Yellow. G 3.10. A hydrous phosphate of uranium and calcium. $Ca(UO_2)_2P_2O_8.8H_2O$. Basset mines, Cornwall, England. Previously regarded as autunite.

Batavite. **Ap. I, 9. Ab. MM 11, 324 (No. 53).**

Micaceous scales of hexagonal outline. G 2.183. A hydrous silicate of magnesium and aluminum. Approximately $4H_2O.4MgO.Al_2O_3.4SiO_2$. A decomposition product perhaps related to the micas or chlorites. Passau, Bavaria, Germany.

Batchelorite. **Ap. III, 11. DT 682. Ab. MM 16, 354 (No. 77). MM 23, 482 (No. 143). CA 8, 40.**

Foliated. Green. Resembles pyrophyllite. A hydrous silicate of aluminum. $Al_2O_3.2SiO_2.H_2O$. Mt. Lyell mine, Tasmania.

Bauerite. **Ap. III, 12. Ab. MM 16, 355 (No. 77).**

The crystalline end product, consisting mainly of hydrated silica, which results from the artificial or natural bleaching (baueritization) of biotite.

Baumhauerite. **Ap. II, 13. DT 448. MM 13, 151–160 (No. 60); 13, 339–341 (No. 62). Ab. MM 13, 364 (No. 62).**

Monoclinic. Complex crystals. Lead- to steel-gray. H 3. G 5.329. A sulfarsenide of lead. $4PbS.3As_2S_3$. Binnenthal, Switzerland.

Bäumlerite. CA 6, 1419.
See baeumlerite.

Bavenite. Ap. II, 14. DT 656. AM 17, 409–422 (Sept. 1932); 18, 341–344 (Aug. 1933). Ab. MM 13, 364 (No. 62). CA 26, 5515.
Orthorhombic. Earthy, radiating fibrous; platy prismatic crystals. White. H 5.5. G 2.74. A hydrous silicate of aluminum, calcium, and beryllium. $9SiO_2.Al_2O_3.BeO.4CaO.H_2O$. Baveno, Italy; Mesa Grande, California.

Bayate. AM 8, 186 (Oct. 1923). Ab. MM 19, 335 (No. 98).
A local name for a brown, ferruginous variety of jasper. Cuba.

Bayerite. MA 4, 30; 4, 169; 4, 305; 6, 349–350. Ab. MM 22, 616 (No. 134). CA 30, 2137.
An artificial form of aluminum hydroxide. $Al(OH)_3$. It is metastable with respect to gibbsite.

Bazzite. Ap. III, 12. DT 634. MA 1, 204. Ab. MM 17, 345 (No. 82). CA 9, 2365.
Hexagonal. Minute prisms or barrel-shaped crystals. Azure-blue. H 6.5. G 2.80. A silicate of scandium with other rare-earth metals, iron, and sodium. Baveno, Piedmont, Italy.

Beaconite. Ap. I, 9. Ab. MM 12, 379 (No. 58).
A fibrous variety of talc, resembling asbestus. G 2.74–2.88. A hydrous silicate of magnesium and iron. $H_2(Mg,Fe)_3(SiO_4)_3$. Beacon, Michigan.

Beaverite.. Ap. III, 12. DT 766. Ab. MM 16, 355 (No. 77). CA 5, 3213.
Hexagonal. Earthy, but consisting of minute hexagonal plates. Canary-yellow. G 4.36. A hydrous sulfate of copper, lead, ferric iron, and aluminum. $CuO.PbO.Fe_2O_3.2SO_3.4H_2O$. Frisco, Beaver County, Utah.

Beckelite. Ap. II, 14. DT 634. Ab. MM 14, 395 (No. 67).
Isometric. Minute crystals. Yellow. H 5. G 4.15. A silicate of calcium and the cerium metals. $Ca_3(Ce,La,Di)_4Si_3O_{15}$. Mariupol, Sea of Azov, Russia.

Beckerite. Ap. II, 14. Ab. MM 12, 379 (No. 58).
A brown resin, occurring with amber. Baltic Coast, East Prussia, Germany.

Becquerelite. DT 510. Ab. AM 7, 179 (Oct. 1922). AM 19, 309–315 (July 1934). MA 1,377; 3, 233; 6, 90 and 332. CA 16, 2651.

Orthorhombic. Minute crystals. Brownish yellow. G 5.20–5.68. An uranium hydroxide. $4UO_3.7H_2O$ (or $2UO_3.3H_2O$). Katanga, Belgian Congo; Wölsendorf, Bavaria, Germany.

Befanamite. DT 620. Ab. AM 11, 137 (May 1926). MA 1, 172; 2, 146. Ab. MM 20, 447 (No. 110).

Orthorhombic. Grayish green. H 6–7. G 3.492. The scandium end member of the thortveitite group, $Sc_2Si_2O_7$, but containing also Zr and Al. From Befanamo, Madagascar, as distinct from the Norwegian thortveitite, which contains much yttrium earths.

Beidellite. DT 682. Ab. AM 11, 8 (Mar. 1926) and 11, 167 (June 1926). MA 3, 8; 6, 371. CA 20, 885.

Probably orthorhombic. Minute plates forming a gouge clay. White, reddish, or brownish gray. A hydrous aluminum silicate. $Al_2O_3.3SiO_2.4H_2O$. Beidell, Colorado; Owyhee County, Idaho; etc. Previously described as leverrierite.

Beiyinite. Ab. AM 21, 214 (Mar. 1936). MA 6, 151. CA 32, 889.

Perhaps tetragonal. Grains. Greenish yellow. H about 4.5. G 4.829. "Perhaps a lanthanum, cerium, yttrium, erbium-bearing mineral." Beiyin Obo, Inner Mongolia.

Belbaite. DT 636. Ab. MM 17, 345 (No. 82).

A hypothetical molecule assumed to be present in tourmaline, expressed by the formula $M'_{14}Al_2B_2Si_4O_{21}$.

Beldongrite. Ap. III, 12. DT 510. Ab. MM 15, 417 (No. 72). CA 4, 735.

A black pitch-like mineral, closely allied to psilomelane, probably an alteration product of spessartite. A hydrous oxide of manganese and iron. $6Mn_3O_5.Fe_2O_3.8H_2O$. Beldongri, Nagpur district, India.

Belgite. AM 5, 15 (Jan. 1920). Ab. MM 18, 374 (No. 87).

Same as willemite.

Belite. Belith. Ap. II, 14. Ab. MM 12, 379 (No. 58).

A constituent of Portland cement clinkers.

Bellite. **Ap. II, 14. DT 754. Ab. MM 14, 395 (No. 67). CA 8, 40.**
Hexagonal. Tufts of minute needles; crusts. Crimson-red to orange and yellow. H 2.5. G. 5.5. A lead chromate containing arsenious oxide, etc. $PbCrO_4$, As_2O_3. Magnet, Tasmania.

Belmontite. **Ap. III, 12. Ab. MM 16, 355 (No. 77).**
A yellow mineral said to be a silicate of lead, occurring with stetefeldtite. Belmont, Nevada.

Benitoite. **Ap. II, 14; III, 13. DT 691. Ab. MM 15, 417 (No. 72). CA 1, 2449; 2, 1673 and 2769.**
Hexagonal. Ditrigonal-bipyramidal crystals. Sapphire-blue to colorless. H 6.25–6.5. G 3.64–3.65. An acid titano-silicate of barium. $BaTiSi_3O_9$. Used as a gem stone. San Benito County, California.

Benjaminite. **DT 448. Ab. AM 10, 334 (Sept. 1925). MA 2, 337. Ab. MM 20, 447 (No. 110). CA 18, 2304.**
Anisotropic. One good cleavage. Gray. H 3.5. A sulfobismuthite of lead, copper, and silver. $(Cu,Ag)_2S.2PbS.2Bi_2S_3$. Near Manhattan, Nevada.

Bentonite. **Ap. I, 9; II, 15. DT 683. Ab. MM 12, 380 (No. 58). MA 3, 72. CA 16, 887.**
A soapy clay resulting from the alteration of glassy volcanic ash or tuff, composed largely of montmorillonite, or rarely of beidellite, with variable amounts of crystal grains of volcanic origin and admixed sand. Regarded by Ross and Shannon as a rock. It is widely distributed in the Western United States and Canada.

Beresowite. **Berezovite.** **Ap. I, 9. Ab. MM 12, 380 (No. 58).**
Crystalline. Dark red. G 6.69. A chromate and carbonate of lead. $2PbO.3PbCrO_4.PbCO_3$. Beresovsk, Urals.

Berkeyite. **Ab. MM 21, 558 (No. 122).**
A blue gem stone from Brazil, afterwards identified as lazulite.

Bermanite. **AM 21, 656–661 (Oct. 1936). MA 6, 442. CA 31, 2555.**
Orthorhombic. Minute tabular crystals. Reddish brown. H 3.5. G 2.84. A basic hydrous phosphate chiefly of manganese, iron, and magnesium. $R''_5R'''_8(PO_4)_8(OH)_{10}.15H_2O$, with $R''' = Mn:Fe = 9:1$; $R'' = Mn:Mg:(Ca+Na) = 19:6:2$. Near Hillside, Arizona.

Berthonite. DT 449. Ab. AM 9, 173 (Aug. 1924). MA 2, 149. Ab. MM 20, 447 (No. 110). CA 18, 647.

Isometric (?). Fine granular. Lead-gray. H 4–5. G 5.49. A sulfantimonite of lead and copper. $5PbS.9Cu_2S.7Sb_2S_3$. Slata, Tunisia.

Beryllium-humite. Ab. MM 14, 395 (No. 67).

Humite containing about 1% BeO and no fluorine. $Mg_5(MgOH)_2(SiO_4)_3$. Allalin district, Valais, Switzerland.

Beryllium-vesuvianite. AM 15, 31 (Jan. 1930). MA 4, 329. Ab. MM 22, 616 (No. 134).

Tetragonal. Slender prisms. Brown. G 3.385. A silicate of calcium, magnesium, manganese, zinc, aluminum, and beryllium. $2(Mg,Mn,Zn)O.6CaO.4BeO.Al_2O_3.6SiO_2$. Analysis shows 9.20% BeO. Franklin, New Jersey.

Berzelite. AM 9, 62 (Mar. 1924) and 21, 189 (Mar. 1936).

Preferred spelling for berzeliite, DS No. 538.

Beta-argentite. CA 22, 2903.

The orthorhombic modification of argentite Ag_2S, existing at ordinary temperatures.

Beta-ascharite. Ab. AM 23, 294 (Apr. 1938).

Orthorhombic (?). Chalky masses, fine fibrous or massive. White. H 3.5. G 2.65. A hydrous magnesium borate. $MgHBO_3$. Closely related to camsellite. Lake Inder borate deposits, 150 km. north of Caspian Sea, Russia.

Beta-calaverite. CA 29, 5782.

A modified type of calaverite.

Beta-carnegieite. MA 5, 185.

Triclinic. A sodium anorthite. $NaAlSiO_4$. It is produced from alpha-carnegieite at temperatures below 690°.

Beta-catapleiite. CA 19, 228.

The usual hexagonal form of catapleite. Narsarsuk, Greenland.

Beta-chrysotile. AM 21, 48–54 (Jan. 1936). MA 6, 259.

"The slip-fibre variety characterized by a higher content of silica, $H_{16}Mg_{12}Si_9O_{38}$, with an imperfect fibrous structure and differing optical properties."

Beta-copiapite. CA 6, 61.

A basic hydrous sulfate of iron. $(HO)Fe_3(SO_4)_4.13H_2O$.

Beta-corundum. CA 22, 4414.

"A corundum with an open structure. *n* 1.68; G 3.30; O at. vol. 17.25 cubic A.U."

Beta-cristobalite. MA 5, 177. CA 27, 2399.

Isometric. Octahedral crystals, often spinel twins. The high-temperature form of silica, SiO_2, stable between 1470° and 1710°, but it may persist in a metastable condition down to about 230°. Occurs in Australian opals.

Beta-dahllite. CA 7, 3944.

A calcium carbonate phosphate. A variety of dahllite.

Beta-eucryptite. Ab. MM 17, 349 (No. 82).

See pseudo-eucryptite.

Betafite. Ap. III, 13. DT 699. Ab. MM 16, 355 (No. 77).

Isometric. Octahedrons modified by dodecahedrons. Greenish black, superficially altered to yellow. H 5. G 3.75–4.17. A hydrous niobate and titanate of uranium, etc. Betafo (and other localities), Madagascar.

Beta-hopeite. MM 15, 12 (No. 68). DT 719.

Distinguished from alpha-hopeite by much lower birefringence; polarizing in gray tints; narrower angle between the optic axes and the interference figures with very few, less brightly colored, rings. Broken Hill, Northern Rhodesia.

Beta-hyblite. DT 612. AM 12, 371–372 (Oct. 1927). MA 3, 367. Ab. MM 21, 565 (No. 122). CA 22, 2904.

Isotropic. Yellow-brown. Basic hydrous sulfo-silicate of thorium with some uranium, iron, and lead. An alteration product of thorite. Hybla, Ontario, Canada.

Beta-kertschenite. Ap. III, 14.

An alteration product of vivianite. $RO.Fe_2O_3.P_2O_5.7H_2O$, with R = Fe, Mn, Mg. Kertsch, Crimea, Russia.

Beta-kliachite. Ab. MM 15, 424 (No. 72).

Colloidal aluminum hydroxide. $Al_2O_3.3H_2O$. One of the constituents of bauxite.

Beta-laumontite. MA 3, 287.

Aggregates of needles. Colorless. A hydrous silicate of aluminum and calcium. Nadap, Velencze Mts., Hungary.

Beta-leonhardite. DT 649. MA 2, 299.
A laumontite that has lost all but one molecule of its water.

Beta-metavoltine. CA 22, 47; 30, 8086.
A stable triclinic form of metavoltine.

Beta-mooreite. DT 763. AM 14, 103 (Mar. 1929) and 14, 165 (May 1929). MA 4, 151. Ab. MM 22, 625 (No. 134).
Monoclinic (?). Tabular crystals. Bluish white. A basic hydrous sulfate of magnesium, zinc, and manganese. $RSO_4.6R(OH)_2.4H_2O$, with R = Mg, Zn, Mn. Sterling Hill, Sussex County, New Jersey.

Beta-paligorskite. Ap. III, 57. CA 2, 1404; 10, 581.
Fibrous-asbestiform. A hydrous alumino-silicate of magnesium. $H_8Mg_2Si_3O_{12} + H_2Al_2Si_4O_{12}.5H_2O$, or one molecule each of parasepiolite and paramontmorillonite. Kurzi, near Sympheropol, Crimea, Russia; Nertschinsk and Chabarskaja, Siberia; Stausvik, Finland.

Beta-pilolite. CA 10, 581.
A doubtful member of the paligorskite group, assumed to be composed of three molecules of parasepiolite and one of paramontmorillonite. $H_{34}Mg_6Al_2(SiO_4)_{13}$.

Beta-quartz. Ap. III, 66. DT 471. MM 19, 295–300 (No. 96); 21, 366–382 (No. 119).
Hexagonal, trapezohedral tetartohedral. Usually in regular hexagonal bipyramids; often in twins. Formed at temperatures between 573° and 870°. Typically at several localities in Cornwall, England, and Esterel Mts., France. Found in graphic granite, granite pegmatites, and porphyries.

Beta-quercyite. Ap. III, 66. CA 8, 647.
A mixture of collophanite with yellow, optically positive but unknown mineral fibers. From Quercy and other French phosphate deposits.

Beta-uranopilite. CA 30, 6675.
An alteration product of uranopilite. A hydrous sulfate of uranium. $6UO_3.SO_3.10H_2O$.

Beta-uranotil. CA 30, 6675.
An alteration product of uranotil.

Beta-uzbekite. DT 715. Ab. AM 14, 79 (Feb. 1929). CA 24, 41.
Crusts of fine needles. Dark green. A basic vanadate of copper. $3CuO.V_2O_5.4H_2O$. Ferghana, Russian Turkestan.

Beta-wiikite. Ab. AM 22, 1131 (Nov. 1937). MA 6, 478.
One of the constituent portions of the isomorphous mixture known as wiikite. It is a hydrous niobate of yttrium. $Y_4(HNbO_5)_3$. Impilaks, Finland.

Beta-wollastonite. Ab. MM 17, 360 (No. 82).
Same as pseudowollastonite.

Bialite. DT 717. Ab. AM 14, 439 (Nov. 1929). MA 4, 148. Ab. MM 22, 616 (No. 134). CA 24, 4244.
Minute needles. White. A hydrous phosphate of calcium, magnesium, and aluminum. Perhaps a magnesian variety of tavistockite. Katanga, Belgian Congo.

Bianchite. DT 760. Ab. AM 15, 538 (Nov. 1930). MA 4, 341. Ab. MM 22, 616 (No. 134). CA 24, 5674.
Probably monoclinic. Crystalline crusts. White. G 2.031. A hydrous double sulfate of zinc and iron. $FeZn_2(SO_4)_3.18H_2O$. Raibl, Italy. Later (MA 5, 258) shown to be an isomorphous mixture of zinc and iron sulfates, $(Zn,Fe)SO_4.6H_2O$. "belonging to the hexahydrate series of salts of Zn, Ni, Co and Mg."

Bidalotite. MA 7, 11. CA 32, 3728.
Orthorhombic. Small grains and plates. Lilac. G 3.22. A pyroxene; an alteration product of cordierite. Differs from hypersthene in containing Al_2O_3, 4.90–10.55%. A silicate of aluminum, iron, and magnesium. Near Bidaloti, Mysore, India.

Bilinite. DT 764. Ab. MM 17, 345 (No. 82). CA 9, 190.
Radially fibrous masses. White to yellow. H 2. G 1.87. A hydrous sulfate of iron. $FeSO_4.Fe_2(SO_4)_3.22H_2O$. The iron analogue of halotrichite. Schwaz, near Bilin, Bohemia.

Biopyribole. Ab. MM 16, 355 (No. 77).
A contraction of the names biotite, pyroxene, and amphibole, suggested by Johannsen as a group name.

Birmite. Ap. I, 10. Ab. MM 12, 380 (No. 58).
Same as burmite.

Bisbeeite. **Ap. III, 14. DT 686. MA 1, 207. Ab. MM 17, 345 (No. 82). CA 9, 426.**

Orthorhombic. Fibrous or in thin laths. Pale blue to nearly white. A hydrous copper silicate. $CuSiO_3.H_2O$. Bisbee, Arizona.

Bismoclite. **Ab. AM 20, 813 (Nov. 1935). MM 24, 59 (No. 149). CA 29, 6175.**

Tetragonal (?). Platy fibrous. Pale grayish or creamy white. H 2.5. G 7.36. A bismuth oxychloride. BiOCl. Namaqualand, South Africa.

Bismutoplagionite. **DT 447. Ab. AM 5, 105 (May 1920). MA 1, 75 and 151. CA 14, 1505.**

Orthorhombic (?). Needle-like crystals or fibrous. Bluish lead-gray. H 2.8. G 5.35. A lead sulfobismuthite. $5PbS.4Bi_2S_3$. Wickes, Montana.

Bismutosmaltine. **Ab. MM 11, 324 (No. 53).**

See bismutosmaltite.

Bismutosmaltite. **Ap. I, 10. DT 438. Ab. MM 19, 335 (No. 98).**

Isometric. Tin-white. H 6. G 6.92. A skutterudite in which bismuth partly replaces arsenic. $Co(As,Bi)_3$. Near Schneeberg, Saxony, Germany.

Bismutospherite. **AM 9, 62 (Mar. 1924) and 21, 189 (Mar. 1936).**

Preferred spelling for bismutosphärite, DS No. 283.

Bismutotantalite. **DT 697. Ab. AM 14, 312 (Aug. 1929) and 15, 201 (May 1930). MM 22, 185–192 (No. 127). Ab. MM 616 (No. 134). CA 24, 1321.**

Orthorhombic. Large, rough crystals. Black. H 5. G 8.15. A bismuth tantalate and niobate. Probably $Bi_2O_3.(Ta,Nb)_2O_5$. Kampala, Uganda, East Africa.

Bitumenite. Bituminite. **Ab. MM 12, 380 (No. 58).**

Same as torbanite.

Bityite. **Ap. II, 16; III, 14. DT 657. Ab. MM 15, 417 (No. 72). CA 2, 2533.**

Pseudohexagonal. Minute hexagonal plates. Yellowish white. H 5.5. G 3.05. A hydrous orthosilicate of aluminum and calcium, with small amounts of beryllium, lithium, etc. $10SiO_2.8Al_2O_3.5\frac{1}{2}(Ca,Be,Mg)O.1\frac{1}{2}(Li,Na,K)_2O.7H_2O$. Mt. Bity, Madagascar.

Bixbite. **Ab. MM 17, 346 (No. 82).**
"A gooseberry-red beryl found to the south-west of Simpson Spring, Utah."

Bixbyite. **Ap. I, 10. DT 487. AM 19, 82, 83 (Feb. 1934). Ab. MM 11, 324 (No. 53).**
Isometric. Cubes, often modified. Black. H 6–6.5. G 4.945. An oxide of iron and manganese. $(Fe,Mn)_2O_3$. Also interpreted as a manganate of iron, analogous to perovskite. Northeast section of Thomas Range, Juab County, Utah; Ribes, Spain; Northern Patagonia.

Blanfordite. **Ap. II, 16. DT 559. Ab. MM 14, 395 (No. 67). CA 4, 735.**
A monoclinic pyroxene containing some sodium, manganese, and iron. Central Provinces, India.

Bleimalachite. **Ap. II, 16.**
Monoclinic. Druses of acicular crystals. A lead-bearing malachite. $2CuCO_3.PbCO_3.Cu(OH)_2$. Syrjanovsk mine in the Altai, Siberia.

Bliabergite. **Ab. MM 11, 324 (No. 53).**
See Bliabergsite.

Bliabergsite. **Ap. I, 11.**
"A brittle-mica, near ottrelite." Bliaberg, Sweden.

Blockite. **Ab. AM 21, 270 (Apr. 1936). MA 6, 147 and 490. CA 29, 7872. AM 22, 319–324 (May 1937).**
Concentric shelly. Black. H 2.5. G 6.03–6.06. A selenide of nickel and copper. $(Ni,Cu)Se_2$. Proved to be identical with penroseite. Near Colquechaca, Chile.

Bloedite. **AM 9, 62 (Mar. 1924) and 21, 189 (Mar. 1936).**
Preferred spelling for blödite, DS No. 758.

Blomstrandine. **Ap. II, 17. DT 699. Ab. MM 14, 396 (No. 67). CA 1, 1375.**
Orthorhombic. Tabular crystals. Brownish black. G 4.82–4.93. A titano-niobate of the yttrium earths, thorium, uranium, etc. Previously referred to eschynite. Dimorphous with poly-

crase and isomorphous with priorite. Hitterö, Arendal, and elsewhere in Norway. Not to be confused with blomstrandite of G. Lindstrom, DS p. 746.

Blomstrandinite. Ab. MM 22, 616 (No. 134).
Same as blomstrandine.

Blueite. Ap. I, 11. Ab. MM 11, 324 (No. 53).
A nickeliferous pyrite. Sudbury, Ontario, Canada.

Blythite. DT 594. Ab. AM 13, 33 (Jan. 1928). MA 3, 308. Ab. MM 21, 558 (No. 122). CA 22, 203.
A variety of garnet containing the manganous-manganic molecule. $3MnO.Mn_2O_3.3SiO_2$. Nagpur, India.

Bobrovkite. Bobrowkite. Ab. MM 19, 336 (No. 98).
Fine scales in platiniferous sands. An alloy of nickel and iron. Ni_5Fe_2. Not proved to differ from awaruite. Bobrovka River, Urals.

Bodenbenderite. DT 634. Ab. AM 14, 388 (Oct. 1929). MA 3, 472. Ab. MM 21, 559 (No. 122). CA 22, 4413.
Isometric. Dodecahedral habit. Flesh-red. H 6–6.5. G 3.5. A silicate and titanate of aluminum, yttrium, manganese, and calcium. $4(Mn,Ca)O.(Al,Y)_2O_3.3(Si,Ti)O_2$. Sierra Chica, Argentina.

Boehmite. DT 503. Ab. AM 13, 72 (Feb. 1928). MA 3, 369; 6, 373. Ab. MM 21, 559 (No. 122). CA 21, 3031.
Orthorhombic. Microscopic plates. An aluminum hydroxide. Probably $Al_2O_3.H_2O$. In bauxites of France.

Boksputite. Ab. AM 20, 814 (Nov. 1935). MM 24, 62 (No. 149). CA 29, 6175.
Fine-grained, crystalline masses. Yellow. H 3.5. G 7.29. A carbonate of lead and bismuth. $6PbO.Bi_2O_3.3CO_2$. Gordonia, South Africa.

Bolivarite. DT 724. Ab. AM 8, 38 (Feb. 1923). MA 1, 378. Ab. MM 19, 336 (No. 98). CA 16, 4162.
Cryptocrystalline. Crusts. Yellowish green H 2.5. G 2.05. A hydrous aluminum phosphate. $Al_2PO_4(OH)_3.H_2O$. Pontevedra, Spain. Probably identical with variscite.

Bolivianite. **DT 458. Ab. AM 11, 194 (July 1926). MA 3, 112 and 370. Ab. MM 21, 559 (No. 122). CA 21, 39.**

Rhombohedral. Black with blue tarnish. H 4–5. G 4.1. A sulfostannate of copper. Probably identical with stannite. Bolivia. Not bolivianite of Breithaupt, DS p.107.

Bonamite. **Ab. MM 15, 418 (No. 72). CA 3, 2664.**

A jeweler's trade name for an apple green to blue smithsonite, $ZnCO_3$, from Kelly, New Mexico.

Bondsdorffite. **CA 31, 8448.**

Pseudohexagonal. A cordierite pseudomorph. Black. H 4. G 2.61–2.68. A hydrous silicate of potassium, magnesium, iron, and aluminum. $K_2(Mg,Fe)_2Al_8(Si_2O_7)_5.7H_2O$. Åbö, Finland.

Boodtite. **Ab. MM 24, 603 (No. 158). MA 6, 343. CA 31, 4235.**

Friable masses. Black. A hydrous oxide of cobalt, copper, and iron. $5Co_2O_3.CuO.Fe_2O_3.11H_2O$. Katanga, Belgian Congo.

Boothite. **Ap. II, 18. DT 762. Ab. MM 13, 365. (No. 62).**

Monoclinic. Usually massive. Blue, lighter than chalcanthite. A hydrous sulfate of copper, differing from chalcanthite in its larger percentage of water. $CuSO_4.7H_2O$. Leona Heights, Alameda County, and Campo Seco, Calaveras County, California.

Borax, octahedral. **Ab. MM 14, 396 (No. 67).**

See octahedral borax.

Borgströmite. **DT 768. Ab. AM 8, 187 (Oct. 1923) and 10, 180 (July 1925). MA 2, 10. Ab. MM 20, 447 (No. 110).**

Rhombohedral. Earthy. Yellow. G 2.32. (Not 3.32). A hydrous ferric sulfate. $Fe_2O_3.SO_3.3H_2O$. A weathering product of pyrite. Otravaara, Finland.

Bortz. **Ab. MM 19, 336 (No. 98).**

A trade name. An often-used corruption of the plural of bort.

Börzsönyite. **Ab. MM 23, 626 (No. 146).**

Suggested as an alternative for the names wehrlite and pilsenite. A bismuth telluride. Börzsöny, Hungary.

Bosphorite. **Ab. MM 20, 448. (No. 110).**

Incrustation. Compact. Yellow. A hydrous ferric phosphate. $3Fe_2O_3.2P_2O_5.17H_2O$. Kertsch Peninsula, Crimea, Russia.

Botesite. **Ab. MM 22, 617 (No. 134).**

Same as hessite.

Bouglisite. **Ap. I, 11. Ab. MM 11, 324 (No. 53).**
A mineral having the form of anglesite, but shown to be a mixture of anglesite and gypsum. $2PbSO_4.CaSO_4.2H_2O$. Boléo, Lower California, Mexico.

Bourgeoisite. **Ab. MM 13, 365 (No. 62) and 17, 356 (No. 82).**
Originally described as a tetragonal modification of calcium silicate dimorphous with wollastonite. Later called pseudo-wollastonite.

Bowmanite. **Ap. II, 19. DT 711. MM 14, 80–81 (No. 64); 14, 389–393 (No. 67). Ab. MM 14, 396 (No. 67). CA 1, 2787.**
Rhombohedral. Minute plates. Honey-yellow. H over 4. G 3.219–3.266. Originally thought to be a new phosphate of calcium and aluminum, but later shown to contain strontium and to be identical with hamlinite. Binnenthal, Switzerland.

Boydite. **AM 16, 338 (Aug. 1931). Ab. MM 23, 626 (No. 146).**
Local name for probertite.

Braggite. **Ab. AM 17, 455 (Sept. 1932) and 18, 79 (Feb. 1933). MM 23, 198 (No. 138). Ab. MM 23, 626 (No. 146). CA 26, 5515.**
Tetragonal. Minute grains. A sulfide of platinum and palladium with some nickel (3–5%). (Pt,Pd,Ni)S. Found in concentrates from the Bushveld norite of the Transvaal, South Africa. This is the first mineral to be discovered by X-ray methods.

Brandãosite. **Ab. MM 24, 604 (No. 158). MA 6, 441. CA 32, 888.**
Isometric. In trapezohedrons. Red. G 4.23. Supposed to be an almandite-spessartite garnet, but differs from garnet. $4(Fe,Mn)O.(Al,Fe)_2O_3.4SiO_2$. Mangualde, Portugal.

Brannerite. **DT 693. Ab. AM 5, 105 (May 1920). MA 1, 22 and 122. Ab. MM 19, 336 (No. 98). CA 14, 915.**
Tetragonal or orthorhombic. Prismatic crystals or grains. Black. H 4.5. G 4.50–5.43. A hydrated metatitanate of thorium, zirconium, uranium, yttrium, etc. $6(Ca,Fe,UO_2,TiO)TiO_3.8(Th,Zr,UO)(TiO_3)_2.Y_2(TiO_3)_3.3H_2O$. Stanley Basin, Idaho.

Bravoite. **Ap. II, 19; III, 15. DT 435. Ab. MM 15, 418 (No. 72). CA 1, 2071.**
Isometric (?). Grains and crystal fragments, disseminated through vanadium ores. Yellow, paler than pyrite, of which it is

a highly nickeliferous variety (Ni, 18%). Possibly $(Fe,Ni)S_2$. Minasragra, Peru; Mechernich, Germany, AM 15, 12, Jan. 1930.

Brazilite. Ap. I, 11. DT 500. MM 10, 158 (No. 46). Ab. MM 11, 324 (No. 53); 18, 375 (No. 87).

This name has been used for three different materials: (*a*) an oil-bearing rock from Bahia, Brazil; (*b*) a synonym of baddeleyite; (*c*) a trade name for fibrous, mammillated zirconia, perhaps distinct from baddeleyite.

Breadalbanite. Ab. MM 13, 365 (No. 62).

A variety of hornblende from Perthshire, Scotland. Also spelled breadalbaneite.

Brickerite. Ab. AM 22, 71 (Jan. 1937). AM 23, 347–349 (May 1938). MA 5, 200. Ab. MM 23, 626 (No. 146). CA 30, 7503 and 8086.

Minute, prismatic crystals, fibrous (resembling gypsum), nodular. Light yellowish, colorless, white. H 4–4.5. G 4.13. An arsenate of zinc and calcium. $4ZnO.3CaO.2As_2O_5$. Later shown to contain water and to be identical with austinite. Lilli mine, near Lomitos, Bolivia.

Britholite. Ap. II, 19; III, 15. DT 687. Ab. MM 12, 380 (No. 58). CA 6, 2221.

Hexagonal. Twinned crystals. Brown. H 5.5. G 4.446. A complex silicate and phosphate of the cerium metals and calcium. $3[4SiO_2.2(Ce,La,Di,Fe)_2O_3.3(Ca\ Mg)O.H_2O.NaF].2[P_2O_5.Ce_2O_3]$. Julianehaab, Greenland.

Broggite. Ab. MM 24, 604 (No. 158). MA 6, 443.

A variety of asphaltum. Brown. Peru.

Bromatacamite. Ap. III, 15.

An artificial variety of atacamite.

Bromellite. DT 480. Ab. AM 11, 135 (May 1926). MA 3, 5. Ab. MM 21, 559 (No. 122). CA 20, 29.

Hexagonal. Dihexagonal-pyramidal crystals. White. H about 9. G 3.017. A beryllium oxide. BeO. Langban, Sweden.

Bronzite-augite. Ab. MM 15, 420 (No. 72). CA 1, 2072.

One of a group of monoclinic pyroxenes intermediate between the enstatite group and the calcium-bearing monoclinic pyroxenes.

Brostenite. **Ap. II, 20. Ab. AM 5, 136 (July 1920). Ab. MM 13, 365 (No. 62).**

Compact masses. Black. An alteration product of ferriferous rhodochrosite. A mixture. Originally described as a manganite of manganese and ferrous iron. Also called ponite. Brosteni, Rumania.

Brugnatellite. **Ap. II, 21. DT 532. AM 17, 350 (July 1932). Ab. MM 15, 418 (No. 72). MA 2, 240. CA 4, 3182.**

Micaceous, lamellar. Flesh-pink. A basic, hydrous carbonate of magnesium and iron. $MgCO_3.5Mg(OH)_2.Fe(OH)_3.4H_2O$. Val Malenco, Lombardy, Italy; Iron Hill, Colorado.

Brünnichite. **Ab. MM 21, 559 (No. 122).**

A zeolite from Greenland identical with apophyllite.

Brunsvigite. **Ap. II, 21. DT 673. Ab. MM 13, 365 (No. 62).**

Cryptocrystalline. Fine scaly masses. Olive-green to yellowish green. H 1–2. G 3.01. A chlorite near the metachlorite of the Büchenberg, DS p. 656. A hydrous silicate of aluminum, iron, and magnesium. $9(Fe,Mg)O.2Al_2O_3.6SiO_2.8H_2O$. Radauthal, Harz, Germany.

Buldymite. **CA 31, 6141.**

A new Russian mineral. Description not abstracted.

Bultfonteinite. **Ab. AM 17, 455 (Sept. 1932) and 18, 32 (Jan. 1933). MM 23, 145 (No. 138). Ab. MM 23, 626 (No. 146). CA 26, 5515.**

Triclinic. Pink spherules of nearly colorless needles, radiating. H 4.5. G 2.73. A basic hydrous calcium silicate and fluoride. $2Ca(OH,F)_2.SiO_2$. Bultfontein mine, South Africa. Closely related to cuspterite.

Bungonite. **Ab. MM 24, 604 (No. 158).**

Identical with kämmererite. Bungo, Japan.

Burkeite. **AM 20, 50–56 (Jan. 1935). Ab. MM 21, 559 (No. 122) MA 3, 162; 6, 53. CA 29, 6176.**

Orthorhombic. Small flat crystals, and twins; nodules. White, buff, grayish. H 3.5. G 2.57. A sulfato-carbonate of sodium. $2Na_2SO_4.Na_2CO_3$. Searles Lake, California.

Burmite. **Ap. I, 12. Ab. MM 11, 324 (No. 53).**

A fossil resin resembling amber, but harder and tougher. Upper Burma.

Buszite. **DT 634. Ab. AM 14, 438 (Nov. 1929). MA 4, 149. Ab MM 22, 617 (No. 134). CA 24, 4244.**

Hexagonal, trigonal. Short prismatic crystals. Yellowish red. H 5.5. G about 5. A silicate of neodymium, praseodymium, erbium, and europium. Khan, South West Africa.

Butlerite. **DT 767. AM 13, 211 (June 1928) and 16, 404 (Sept. 1931). MA 4, 11. Ab. MM 21, 560 (No. 122).**

Monoclinic. Minute pyramidal crystals. Deep orange-red. H about 2.5. G 2.548. A hydrous sulfate of iron and aluminum. $(Fe,Al)_2O_3.2SO_3.5H_2O$. Jerome, Arizona.

Bütschliite. **Ab. MM 17, 346 (No. 82).**

"Amorphous calcium carbonate represented by the freshly precipitated material and also present in the hard parts of certain organisms."

Buttgenbachite. **DT 740. Ab. AM 11, 216 (Aug. 1926) and 12, 381 (Oct. 1927). MA 3, 6; 3, 270 and 372. Ab. MM 21, 560 (No. 122). CA 20, 353.**

Hexagonal. A felt of minute needles. Sky-blue. G 3.33. A hydrous chloro-nitrate of copper, analogous to connellite. $16CuO.2CuCl_2.Cu(NO_3)_2.19H_2O$. Likasi, Katanga, Belgian Congo.

Bytownorthite. **Ab. AM 11, 138 (May 1926). Ab. MM 21, 560 (No. 122).**

A contraction of bytownite-anorthite. Feldspars of the plagioclase series, ranging in composition from $Ab_{20}An_{80}$ to $Ab_{10}An_{90}$.

C

Cadmiumoxyd. **Ap. II, 21. DT 480.**

Isometric. In minute octahedrons on hemimorphite. Black. H 3. G 6.146. Cd, 87.5%; O, 12.5%. Monte Poni, Sardinia.

Caeruleofibrite. **AM 7, 47 (Mar. 1922). Ab. MM 19, 336 (No. 98).**

See ceruleofibrite.

Caesium-beryl. **Ab. MM 22, 617 (No. 134).**

A variety of alkali-beryl containing up to 4.56% Cs_2O. Usually as pink crystals of tabular habit. Afterwards named vorobyevite and morganite.

Caesium-biotite. **AM 17, 173 (May 1932). MA 5, 192. Ab. MM 23, 627 (No. 146).**

A variety of biotite containing 3.14% Cs_2O. Tin Mountain, near Custer, South Dakota.

Cahnite. **DT 739. AM 12, 149–153 (Apr. 1927). MA 3, 365. Ab. MM 21, 560 (No. 122). CA 22, 2905.**

Tetragonal. Penetration twins of tetrahedron-like sphenoids. White. H about 3. G 3.156. Hydrous boro-arsenate of calcium. $4CaO.B_2O_3.As_2O_5.4H_2O$. Franklin, New Jersey.

Calafatite. **Ap. III, 15. Ab. MM 16, 356 (No. 77).**

Compact. White. H 3.5. G 2.75. A basic hydrous sulfate of aluminum and potassium. $Al_2(SO_4)_3.K_2SO_4.5Al(OH)_3.H_2O$. Almeria, Spain. Near alunite.

Calc-clinobronzite. **AM 8, 186 (Oct. 1923). Ab. MM 19, 336 (No. 98).**

Same as bronzite-augite.

Calc-clinoenstatite. **AM 8, 186 (Oct. 1923). Ab. MM 19, 336 (No. 98).**

Same as enstatite-augite.

Calc-clinohypersthene. **AM. 8, 186 (Oct. 1923). Ab. MM 19, 336 (No. 98).**

Same as hypersthene-augite.

Calciclase. **Ab. MM 21, 560 (No. 122).**

Members of the plagioclase series of feldspars between pure anorthite and $Ab_{10}An_{90}$. See sodaclase.

Calcio-åkermanite. **Ab. MM 24, 604 (No. 158).**

Same as calcium-åkermanite.

Calcio-ancylite. **DT 526. Ab. AM 12, 98 (Mar. 1927). MA 2, 263 and 407. Ab. MM 20, 448 (No. 110). CA 22, 4412.**

Small, imperfect crystals. Brownish yellow. H 4. G 3.82. A variety of ancylite in which part of the strontium is replaced by calcium and barium. $5[(Ce,Y)_2O_3.3CO_2].7[(Sr,Ca,Ba)O.CO_2].10H_2O$. Kola Peninsula, Russian Lapland.

Calciobiotite. **DT 664. Ab. AM 7, 214 (Dec. 1922). MA 1, 107 Ab. MM 19, 336 (No. 98).**

A calciferous variety of biotite containing 14.33% CaO. Brown to almost colorless. Near Rome. Italy.

Calciocancrinite. **MA 1, 110 and 422. Ab. MM 16, 356 (No. 77).**
A variety of cancrinite in which calcium replaces sodium. $3CaAl_2Si_2O_8.CaCO_3$. This agrees with the formula of meionite. Same as kalk-cancrinite, DS p. 428.

Calciocarnotite. **MA 2, 404. Ab. MM 17, 346 (No. 82).**
Same as tyuyamunite.

Calciodialogite. **Ab. MM 16, 356 (No. 77).**
Same as calciorhodochrosite.

Calcio-olivine. **Ab. MM 24, 604 (No. 158).**
Same as lime-olivine, Ab.MM 21, 569, No. 158. A pale green olivine containing 14.09% CaO, intermediate between olivine and monticellite. Nassau, Germany.

Calciopaligorskite. **Ap. III, 16. Ab. MM 15, 418 (No. 72).**
A mountain leather from Strontian, Argyllshire, Scotland, containing much calcium (CaO, 10%.)

Calciorhodochrosite. **Ab. MM 16, 356 (No. 77).**
Mixed carbonates of manganese and calcium, occurring intimately intermixed with rhodonite in manganese ore from Rumania.

Calciosamarskite. **DT 698. AM 13, 63–65 (Feb. 1928). MA 3, 471. Ab. MM 21, 560 (No. 122).**
A calciferous variety of samarskite. Hybla, Ontario, Canada.

Calcioscheelite. **Ab. MM 17, 346 (No. 82).**
Same as scheelite.

Calcio-spessartine. **Ab. MM 24, 604 (No. 158).**
Same as calc-spessartite.

Calciotantalite. **AM 13, 465 (Sept. 1928). Ab. MM 22, 617 (No. 134).**
A variety of tantalite containing 7.78% CaO. G 6.04. Western Australia.

Calciothomsonite. **AM 8, 35 (Feb. 1923). MA 2, 361 and 528. Ab. MM 20, 448 (No. 110). CA 18, 1100.**
(*a*) A variety of thomsonite with ratio of $CaO:Na_2O = 5:1$. Franklin, New Jersey. (*b*) The hypothetical end member, $CaO.Al_2O_3.2SiO_2.3H_2O$, of the thomsonite series.

Calcistrontite. **Ap. I, 13. Ab. MM 12, 380 (No. 58).**

Supposed to be a carbonate of calcium and strontium, $3CaCO_3.SrCO_3$, but shown to be a mixture of calcite and strontianite. Same as calcio-strontianite, DT 524. Hamm, Westphalia, Germany.

Calcium-åkermanite. **DT 607. Ab. MM 24, 604 (No. 158).**

A hypothetical molecule assumed to be present in melilite. $Ca_3Si_2O_7$, that is, akermanite with Mg replaced by Ca.

Calcium carnotite. **Ap. III, 81.**

Same as tyuyamunite.

Calcium ferri-phosphate. **Ab. AM 22, 811 (June 1937).**

Isotropic. Light brown. H 2–3. A hydrous phosphate of calcium and ferric iron. $2CaO.3Fe_2O_3.P_2O_5.10H_2O$ + South Russia.

Calcium-larsenite. **DT 600. AM 13, 142 (Apr. 1928) and 13, 334–340 (July 1928). MA 3, 469. Ab. MM 21, 560 (No. 122). CA 22, 3115.**

Massive. White. G 4.421. A silicate of zinc, lead, and calcium. $(Pb,Ca)ZnSiO_4$. Franklin, New Jersey.

Calcium-lazulite. **Ab. AM 8, 38 (Feb. 1923). MA 1, 377. Ab. MM 19, 337 (No. 98).**

A calciferous lazulite. A basic phosphate of aluminum, magnesium, iron, and calcium. $Mg_4CaFeAl_{12}(OH)_{12}(PO_4)_{12}$. Graves Mt., Georgia; Keewatin, Canada.

Calcium-melilite. **Ab. MM 24, 604 (No. 158).**

A hypothetical molecule, $Ca_3Al_2Si_4O_{14}$, to interpret the composition of mixed crystals of the melilite group.

Calcium-rinkite. **Ab. MM 24, 604 (No. 158). MA 6, 343. CA 32, 887.**

"A fluidal aggregate of needles and fibers." G 3.11. An end member of a series of fluosilicates. A fluo-titano-silicate of calcium and sodium. $3CaTiO_3.10(Ca,Na_2,H_2)SiO_3.3CaF_2$. Perhaps identical with hainite. Kola Peninsula, Russian Lapland.

Calcotephroite. **Ab. MM 24, 605 (No. 158).**

Local name for an impure variety of glaucochroite. Franklin, New Jersey.

Calc-spessartite. Ab. AM 13, 33 (Jan. 1928). Ab. MM 21, 561 (No. 122).

A calciferous variety of spessartite garnet. India.

Caldasite. AM 5, 15 (Jan. 1920). Ab. MM 18, 375 (No. 87).

An ore or rock, consisting mainly of baddeleyite or of a mixture of zircon and orvillite. Caldas district, Minas Geraes, Brazil.

Calderite. DT 594. Ab. AM 13, 33 (Jan. 1928). MA 3, 308.

A variety of garnet containing the manganous-ferric molecule. $3MnO.Fe_2O_3.3SiO_2$. Nagpur, India; etc.

Californite. Ap. II, 24. DT 609. Ab. MM 14, 396 (No. 67).

A compact variety of idocrase. Olive or grass-green to white. H 6.5. G 3.286. Resembles jade and is used as an ornamental stone. Siskiyou and Tulare counties, California.

Camsellite. DT 471. Ab. AM 7, 129 (July 1922). AM 10, 100 (Apr. 1925). MA 1, 375; 2, 565. Ab. MM 19, 337 (No. 98). CA 16, 1723.

Orthorhombic. Fibrous. White. H less than 3. G 2.60. A hydrous borate of magnesium. $2MgO.B_2O_3.H_2O$. Near Douglas Lake, British Columbia. The mineral discovered later at Bolinas Bay, California, is claimed to contain also iron and silica and to have the formula $2(Mg,Fe)O.(B_2O_3,SiO_2).H_2O$.

Canbyite. DT 685. AM 9, 1–5 (Jan. 1924). MA 2, 253. Ab. MM 20, 448 (No. 110). CA 18, 801.

Crystalline layers. Brown. A hydrous silicate of ferric iron. $2H_2O.Fe_2O_3.2SiO_2.2H_2O$. "May be the crystalline phase of the amorphous hisingerite" with which it is associated. Wilmington, Delaware.

Canfieldite. Ap. I, 6 and 13; II, 24. DT 458. Ab. MM 10, 336 (No. 48); 11, 40 (No. 49); 11, 325 (No. 53).

(*a*) This name was first given to an isometric silver sulfogermanate, believed to be a new species, but later it proved to be identical with argyrodite. The name was then withdrawn and transferred to (*b*). (*b*) Isometric. In octahedrons. Black. H 2.5. G 6.28. A silver sulfostannate. $4Ag_2S.SnS_2$. Aullagas, near Colquechaca, Bolivia.

Cannizzarite. DT 445. Ab. AM 11, 194 (July 1926). MA, 3 10. Ab. MM 21, 561 (No. 122). CA 20, 1044.

Orthorhombic (?). Flattened acicular crystals. Lead-gray. H 2. G 6.54. A sulfobismuthite of lead. $PbS.2Bi_2S_3$. Possibly identical with chiviatite. Vulcano, Lipari Islands, Italy.

Capreite. **Ab. MM 24, 605 (No. 158).**

Incrustations. Black. A fetid calcite, similar to pelagosite. Capri, Italy.

Carbapatite. **Ap. II, 24. AM 5, 15 (Jan. 1920). Ab. MM 14, 396 (No. 67). CA 1, 1835.**

Same as carbonate-apatite.

Carbocer. **Ab. MM 24, 605 (No. 158). MA 6, 342. CA 32, 887.**

"A carbonaceous mineral found enclosed in kondrikite." G 1.7. Contains 8.2% rare earths. Chibina tundra, Kola Peninsula, Russian Lapland.

Carbodavyne. **Ab. MM 20, 449 (No. 110).**

A variety of davyne in which carbon dioxide is present as distinguished from acarbodavyne.

Carbonate-apatite. **DT 704. AM 5, 15 (Jan. 1920). Ab. MM 18, 375 (No. 87). MA 1, 257.**

A member of the apatite group containing the carbonate radical. A carbonate and phosphate of calcium. $3Ca_3P_2O_8.CaCO_3$. Same as carbapatite; both names are best withdrawn in favor of dahllite or podolite. Laacher See district, Rhineland, Germany.

Carbonate-marialite. **Ap. III, 70. Ab. MM 17, 346 (No. 82). CA 14, 3620.**

A hypothetical molecule assumed to explain the composition of the scapolite group of minerals. It is supposed to be a sodium-aluminum silicate and carbonate. $Na_2CO_3.3NaAlSi_3O_8$.

Carbonate-meionite. **Ap. III, 70. MA 1, 110. Ab. MM 17, 346 (No. 82). CA 14, 3620.**

A hypothetical molecule assumed to explain the composition of the scapolite group of minerals. It is supposed to be a calcium-aluminum silicate and carbonate. $CaCO_3.3CaAl_2Si_2O_8$.

Carbonate-sodalite. **AM 5, 15 (Jan. 1920). Ab. MM 18, 375 (No. 87). MA 1, 257.**

"A hypothetical isomorph." Wherry. A molecule suggested as present in noselite from Laacher See, Germany, showing presence of CO_2, 1.27; Cl, 1.08; SO_3, 7.97%.

Carborundum. **Ap. II, 24. DT 408. Ab. MM 14, 396 (No. 67).**
A trade name. Hexagonal-rhombohedral plates. Green, often iridescent. H 9.5. Artificial carbon silicide. CSi. Identical with the mineral moissanite.

Carburan. **Ab. MM 24, 605 (No. 158). MA 6, 437. CA 32, 889.**
A carbonaceous mineral containing C,60.96%; H_2O,28.93%, ash, 9.51% (the ash contains UO_3, 54.20%; PbO, 17.01%; Fe_2O_3, 6.01%). Related to thucholite. Karelia, Russia.

Carlosite. **Ap. II, 24. DT 691. Ab. MM 15, 418 (No. 72). CA 1, 2450; 2, 2769.**
Thought to be a new species, but subsequently proved to be identical with neptunite. San Benito County, California.

Carnegieite. **Ap. III, 18. DT 549. MA 3, 15; 5, 185 and 253. Ab. MM 15, 418 (No. 72). CA 6, 2221.**
Triclinic at low temperatures; isometric at high. A sodium-anorthite. A silicate of sodium and aluminum. $Na_2O.Al_2O_3.2SiO_2$. Nepheline inverts to carnegieite at 1248°.

Carnotite. **Ap. I, 13. DT 735. Ab. MM 12, 380 (No. 58). MA 3, 452.**
Orthorhombic. Crystalline powder. Canary-yellow. A hydrous vanadate of potassium and uranium. Approximately $K_2O.2U_2O_3.V_2O_5.2H_2O$. Southwestern Colorado; eastern Utah; Mauch Chunk, Pennsylvania; near Olary, South Australia; etc. Not to be confused with carnotite (silico-carnotite).

Carnotite (silico-carnotite). **Ab. MM 19, 337 and 349 (No. 98).**
Orthorhombic. Crystals. Blue. A silico-phosphate of calcium. $3CaO.P_2O_5 + CaO.SiO_2$. Occurs in a basic slag. Not to be confused with the preceding.

Caswellite. **Ap. I, 14. DT 665. Ab. MM 11, 243 (No. 52) and 11, 325 (No. 53).**
An altered biotite, resembling clintonite. Copper-red. H 2.5–3. G 3.54. Franklin, New Jersey.

Catalinite. **Ab. MM 16, 356 (No. 77).**
Local trade name for beach pebbles, used as gems. Santa Catalina Island, California.

Cataphorite. Catophorite. **Ap. I, 14. Ab. MM 12, 380 (No. 58).**
A soda-iron amphibole between barkevikite and arfvedsonite. Southern Norway.

Catapleite. **AM 9, 62 (Mar. 1924) and 21, 189 (Mar. 1936).**
Preferred spelling for catapleiite, DS No. 346.

Catoptrite. **DT 737. Ab. AM 2, 129 (Oct. 1917). Ab. MM 18, 375 No. (87). MA 1, 19. CA 11, 2650.**
Monoclinic. Minute tabular crystals. Black; red in thin flakes. H 5.5. G 4.5. A silico-antimonate of manganese, iron, and aluminum. $14(Mn,Fe)O.2(Al,Fe)_2O_3.2SiO_2.Sb_2O_5$. Nordmark, Sweden.

Cayeuxite. **Ab. MM 24, 605 (No. 158). MA 6, 344. CA 32, 889.**
Pyritic nodules rich in As, Sb, Ge, Mo, Ni, etc. Gray. H 7. G 3.15–3.20. Carpathians.

Cebollite. **Ap. III, 18. DT 607. Ab. MM 17, 346 (No. 82). CA 8, 3767.**
Orthorhombic (?). Compact, fibrous. White to greenish gray. H 5. G 2.96. A hydrous silicate of calcium and aluminum. $H_4Al_2Ca_5Si_3O_{16}$. Cebolla Creek, Gunnison County, Colorado.

Cedarite. **Ap. I, 14. Ab. MM 12, 380 (No. 58). CA 29, 3943.**
A fossil resin resembling amber. Identical with chemawinite, DS p. 1005. Cedar Lake, Saskatchewan River, Canada.

Celedonite. **Ab. MM 18, 375 (No. 87).**
An incorrect spelling of celadonite.

Celite. Celith. **Ap. II, 25. Ab. MM. 12, 380 (No. 58).**
A constituent of Portland cement clinkers.

Celsian. **Ap. I, 15; II, 25. DT 540. Ab. MM 11, 325 (No. 53). MA 4, 237. CA 6, 972.**
Monoclinic. Crystals and twins of many forms; usually cleavable massive. Colorless. H 6–6.5. G 3.37. A silicate of barium and aluminum. $BaAl_2Si_2O_8$. Jacobsberg, Sweden; Mariposa County, California; etc.

Celyphite. **Ap. I, 15.**
Same as kelyphite, DS p. 447.

Cementite. **Ab. MM 12, 381 (No. 58). MA 3, 18; 6, 191.**
Orthorhombic. White. A carbide of iron, occurring in steel. Probably Fe_3C. Possibly identical with cohenite. From the native iron of Disco Island, Greenland.

Ceramohalite. CA 9, 1289.
Same as keramohalite (alunogen), DS p. 958.

Cerapatite. Ab. MM 24, 605 (No. 158). CA 22, 4412.
Same as cerium-apatite.

Cerepidote. Ap. II, 25. Ab. MM 14, 396 (No. 67).
Same as allanite.

Cerfluorite. Ap. III, 18. Ab. MM 17, 347 (No. 82). CA 9, 575.
Artificial mixed crystals of calcium and cerium fluorides, $(Ca_3,Ce_2)F_6$, analogous to the mineral yttrofluorite.

Cergadolinite. DT 620. Ab. AM 12, 97 (Mar. 1927). MA 2, 25. Ab. MM 20, 449 (No. 110).
A variety of gadolinite containing 23.4% cerium earths. Fyrrisdel, Norway.

Cerium-apatite. AM 11, 293 (Nov. 1926).
A green apatite containing about 3.18% cerium earths. Kola Peninsula, Russian Lapland.

Ceruleite. Ap. II, 25. DT 733. Ab. MM 13, 366 (No. 62).
Compact. Clayey masses made up of excessively minute crystals. Turquois-blue. G 2.803. A hydrous arsenate of aluminum and copper. $CuO.2Al_2O_3.As_2O_5.8H_2O$. Huanaco, Chile.

Cerulene. Ab. MM 18, 375 (No. 87).
Trade name for a form of calcium carbonate colored green and blue by malachite and azurite and used as a gem stone. Bimbowrie, South Australia.

Ceruleofibrite. DT 755. AM 7, 80–83 (May 1922); 9, 55 (Mar. 1924). MA 2, 10 and 344. CA 16, 2651; 18, 1262.
Identical with connellite. Name withdrawn.

Cesarolite. DT 495. Ab. AM 5, 211 (Dec. 1920). MA 1, 201. Ab. MM 19, 337 (No. 98). CA 15, 2809.
Spongy masses. Steel-gray. H 4.5. G 5.29. Hydrous manganate of lead. $H_2PbMn_3O_8$. Sidi-Amor-ben-Salem, Tunisia.

Chalcoalumite. DT 770. AM 4, 70–83 (Apr. 1925). MA 2, 520. Ab. MM 20, 449 (No. 110). CA 19, 2009.
Probably triclinic. Botryoidal, fibrous crusts. Turquois-green to nile-blue. H 2.5. G 2.29. A hydrous sulfate of copper and aluminum. $CuSO_4.4Al(OH)_3.3H_2O$. Bisbee, Arizona.

Chalcolamprite. **Ap. II, 26. DT 694. Ab. MM 12, 381 (No. 58).**
Isometric. In small octahedrons. Grayish red-brown. H 5.5. G 3.77. A silico-niobate of calcium, zirconium, sodium, cerium, etc., with fluorine. $R''Nb_2O_6F_2.R''SiO_3$; with R = Ca, Zr, Na, Ce, etc. A member of the pyrochlore group. Narsarsuk, Greenland.

Chalkopissite. **Ab. MM 20, 449 (No. 110).**
Same as copper-pitchblende. A mixture of chrysocolla and limonite.

Chalmersite. **Ap. II, 27; III, 19. DT 421. AM 21, 55–62 (Jan. 1936). Ab. MM 13, 366 (No. 62). MA 2, 235, 236.**
Identical with cubanite.

Chapmanite. **DT 631. Ab. AM 10, 41 (Feb. 1925). MA 2, 336. Ab. MM 20, 449 (No. 110). CA 19, 229.**
Orthorhombic. Finely divided. Olive-green. Soft. G 3.58. A hydrous silico-antimonate of ferrous iron. $5FeO.Sb_2O_5.5SiO_2.2H_2O$. Cobalt, Ontario, Canada.

Chevkinite. **AM 9, 62 (Mar. 1924) and 21, 189 (Mar. 1936). MA 3, 405.**
Preferred spelling for tscheffkinite (DS No. 513) or tschewkinite.

Chile-löweite. **DT 762. Ab. AM 14, 244 (June 1929). MA 3, 554. Ab. MM 21, 561 (No. 122). CA 23, 5440.**
Rhombohedral. Minute tabular crystals in caliche. A hydrous sulfate of potassium, sodium, and magnesium. $K_2Na_4Mg_2(SO_4)_5.5H_2O$. Chile.

Chillagite. **DT 773. Ab. MM 17, 347 (No. 82). CA 8, 481.**
Tetragonal. Platy crystals. Yellow to brownish. H 3.5. G 7.5. A tungstate and molybdate of lead. $3PbWO_4.PbMoO_4$. Chillagoe, Queensland.

Chinkolobwite. **DT 688. Ab. AM 9, 156 (July 1924). MA 2, 250; 3, 115. Ab. MM 20, 450 (No. 110). CA 18, 512.**
Orthorhombic. Prismatic plates. Canary-yellow. A hydrous silicate of uranium and magnesium. Identical with sklodowskite. Chinkolobwe, Katanga, Belgian Congo.

Chizeuilite. **Ab. MM 16, 356 (No. 77).**
A supposed new mineral, afterward found to be identical with andalusite. Colorless prisms. Chizeuil, France.

Chlopinite. **Ab. AM 22, 810 (June 1937). MA 6, 258 and 518.**
Isotropic. Black. G 5.24. A hydrous titano-niobate (and tantalate) of yttrium, uranium, thorium, and iron. Trans-baikalia. Also called khlopinite and hlopinite.

Chlor-amphibole. **MM 24, 606 (No. 158).**
Same as dashkesanite.

Chlorarsenian. **Ab. MM 12, 381 (No. 58).**
Crystals. Yellowish green. Probably an arsenate of manganese. Örebro, Sweden.

Chloride-marialite. **Ab. MM 17, 346 (No. 82).**
A hypothetical molecule assumed to explain the composition of the scapolite group of minerals. It is supposed to be a sodium-aluminum silicate and chloride. $NaCl.3NaAlSi_3O_8$.

Chlormanganokalite. **Ap. II, 28. DT 464. Ab. MM 14, 397 (No. 67). MM 15, 54–61 (No. 68). CA 1, 2676; 2, 1674.**
Rhombohedral. Flat rhombohedrons. Yellow. H 2.5. G 2.31. A chloride of potassium and manganese. $4KCl.MnCl_2$. Eruption of April, 1906, Vesuvius, Italy.

Chlormankalite. **Ab. MM 21, 561 (No. 122).**
A suggested abbreviation of chlormanganokalite.

Chlormarialite. **Ap, III, 70.**
Same as chloride-marialite.

Chlornatrokalite. **Ap. II, 28. Ab. MM 14, 397 (No. 67). MM 15, 59 (No. 68). CA 1, 2676.**
Monoclinic. Elongated prisms. Citron-yellow. An intimate mixture of halite and sylvite in ejected material from eruption of April 1906, Vesuvius, Italy.

Chloroarsenian. **Ap. I, 16. Ab. MM 11, 325 (No. 53).**
Crystals. Yellowish green. Probably an arsenate of manganese. Örebro, Sweden.

Chloromanganokalite. **CA 5, 1575.**
Same as chlormanganokalite.

Chlorophoenicite. **DT 728. Ab. AM 10, 39 (Feb. 1925) and 12, 381 (Oct. 1927). MA 2, 337. Ab. MM 20, 450 (No. 110). CA 18, 3578; 21, 1610.**
Monoclinic. Elongated crystals. Gray-green. H 3–3.5. G 3.55. A basic hydrous arsenate of zinc and manganese. $10(Zn, Mn)O.As_2O_5.7H_2O$. Franklin, New Jersey.

Chloroxiphite. DT 467. Ab. AM 9, 96 (Apr. 1924). MM 20, 75–77 (No. 102). Ab. MM 20, 450 (No. 110). CA 18, 36.

Monoclinic. Dull-olive or pistachio-green. H 2.5. G 6.763. Oxychloride of lead and copper. $2PbO.Pb(OH)_2.CuCl_2$. Mendip Hills, Somersetshire, England.

Chloro-ziphite. Ab. AM 9, 96 (Apr. 1924). Ab. MM 20, 450 (No. 110).

Same as chloroxiphite.

Chlor-spodiosite. Ab. MM 16, 356 (No. 77).

Orthorhombic. Crystals. The artificially prepared chlorine analogue of spodiosite. $Ca_3(PO_4)_2.CaCl_2$. The natural mineral is distinguished as fluor-spodiosite.

Chlor-utahlite. Ab. MM 16, 357 (No. 77).

The same as utahlite, the prefix being, no doubt, added because of the characteristic green color of the stone. Same as variscite.

Chocolite. Ab. MM 14, 397 (No. 67).

A chocolate-colored nickel ore from New Caledonia. A hydrous silicate of iron, nickel, and magnesium, related to garnierite.

Chondrikite. CA 31, 6141.

Same as kondrikite.

Chondrostibian. Ap, I, 17. Ab. MM 11, 325 (No. 53).

Grains and octahedral crystals (?). Dark brownish red to yellowish red. A hydrous antimonate of manganese and iron. Sjö mine, Örebro, Sweden.

Chrom-brugnatellite. Ap. III, 20. Ab. MM 16, 357 (No. 77). CA 7, 46.

Same as stichtite.

Chrome-beidellite. Ab. AM 20, 541 (July, 1935). MA 5, 486. Ab. MM 23, 627 (No. 146). CA 31, 6141.

An olive-green, chromium-bearing variety of the clay beidellite; Cr_2O_3, 5.02%. Same as chrome-nontronite. North Caucasus, Russia.

Chrome-idocrase. Ab. MM 17, 347 (No. 82).

An emerald-green variety of idocrase, containing chromium. Black Lake, Quebec; Ekaterinburg, Urals.

Chrome-nontronite. Ab. AM 20, 541 (July 1935). MA 5, 486. Ab. MM 23, 627 (No. 146). CA 31, 6141.

Pebbles, or clay. Emerald-green. A chromium-bearing variety of nontronite. North Caucasus, Russia.

Chromepidote. DT 623. Ab. AM 12, 97 (Mar. 1927). Ab. MM 20, 450 (No. 110). MA 6, 47.

Deep-green. A chromium-bearing epidote, identical with tawmawite. $H_2Ca_4Cr_6Si_6O_{26}$. Upper Burma.

Chrome-tremolite. Ab. MM 24, 606 (No. 158). MA 6, 47. CA 28, 77.

Tremolite containing 1.61% Cr_2O_3. Outokumpu, Finland.

Chrome-vesuvian. MM 24, 606 (No. 158). MA 3, 354.

Same as chrome-idocrase.

Chromitite. Ap. III, 20. DT 493. Ab. MM 15, 419 (No. 72). CA 3, 1137.

Isometric. Octahedrons. Small crystals in sand. G 3.1. An oxide of iron and chromium, or an iron chromate. $FeCrO_3$. Zeljin Mt., Jugoslavia.

Chromlöweite. Ab. AM 14, 388 (Oct. 1929). MA 3, 554. Ab. MM 21, 561 (No. 122).

Trigonal. Minute crystals. A chromium-bearing iron sulfate found in caliche. Chile.

Chromocyclite. Ab. MM 13, 366 (No. 62).

Apophyllite which shows colored interference rings in convergent polarized light, as distinct from black and white rings of the leucocyclite variety.

Chromohercynite. DT 489. Ab. AM 6, 140 (Sept. 1921). MA 1, 123. Ab. MM 19, 337 (No. 98). CA 15, 220.

Granular masses. Black. G 4.415. "An isomorphous mixture in equal molecular proportions of the chromite and hercynite molecules." Essentially $FeCr_2O_4.FeAl_2O_4$. "A subspecies of hercynite." Wherry. Madagascar.

Chromojadeite. MA 5, 71. Ab. MM 23, 627 (No. 146).

Same as tawmawite. Burma.

Chromopicotite. Ab. MM 16, 357 (No. 77).

Same as chrompicotite, DS p. 228.

Chromrutile. **AM 13, 69 (Feb. 1928). Ab. MM 21, 561 (No. 122).** Tetragonal, bipyramidal. Black crystals. A chromium-bearing rutile. Washington district, Nevada County, California.

Chrysanthemum-stone. **MA 3, 9.** Same as kikukwaseki.

Chubutite. **DT 468. Ab. AM 4, 103 (Aug. 1919) and 7, 183 (Oct. 1922). Ab. MM 18, 376 (No. 87). MA 1, 120 and 121. CA 13, 298.** Tetragonal. Lamellar. Reddish yellow. H 2.5. G 7.952. An oxychloride of lead. $7PbO.PbCl_2$. Probably identical with lorettoite. Chubut, Argentina.

Churchillite. **Ab. MM 12, 381 (No. 58).** Same as mendipite. Churchill, Mendip Hills, England.

Ciempozuelite. **Ab. MM 13, 366 (No. 62).** A sulfate of sodium and calcium. $3Na_2SO_4.CaSO_4$. Possibly a mixture of glauberite and thenardite. Ciempozuelos, Madrid, Spain.

Clarain. **AM 5, 15 (Jan. 1920). Ab. MM 18, 376 (No. 87).** A bright (or glance) coal. Later altered to clarite.

Clarite. (*a*) **DS p. 148. Ap. I, 24. DT 457. MM 11, 75 (No. 50).** (*b*) **Ab. MM 24, 606 (No. 158).** (*a*) Enargite. (*b*) Same as clarain. A bright or glance coal.

Clarkeite. **DT 746. AM 16, 213–220 (May 1931). MA 4, 498. Ab. MM 22, 617 (No. 134). CA 25, 5117.** Massive. Very dark brown. "Brown gummite." H 4–4.5. G 6.39. A hydrous uranate of sodium and lead. $(Na_2,Pb)O.3UO_3.3H_2O$. Mitchell County, North Carolina.

Clayite. **Ab. AM 3, 188 (Oct. 1918). Ab. MM 15, 419 (No. 72). MA 3, 70.** This name has been suggested for "colloidal kaolinite. This shows a transformation at 500°, indicated by a change in the thermal curve. . . . The mineral make-up of various natural clays can accordingly be determined by heating them to this temperature and noting whether or not a break occurs. A number of English fireclays are found to consist chiefly of clayite." A hydrous silicate of aluminum. $Al_2O_3.2SiO_2.2H_2O$. Not to be confused with clayite, DS p. 141.

Cliachite. Ap. III, 21. DT 506. Ab. MM 16, 357 (No. 77).
(*a*) A ferruginous bauxite from Cliache, Dalmatia. (*b*) Colloidal aluminum hydroxide occurring as one of the constituents of bauxite. See sporogelite.

Clinoamphibole. AM 12, 222 (May 1927). Ab. MM 20, 450 (No. 110).
A group name for the monoclinic amphiboles.

Clinoaugite. Ab. MM 13, 366 (No. 62).
A collective name for the monoclinic pyroxenes.

Clinobronzite. Ab. MM 15, 419 (No. 72). CA 1, 2072.
See clinoenstatite.

Clinoenstatite. Ap. II, 30; III, 21. DT 557. MA 2, 220. Ab. MM 20, 450 (No. 110). MM 25, 23–29 (No. 160). CA 1, 2072; 7, 2031.
A monoclinic variety of pyroxene. Crystals elongated parallel to *c* axis. Typically magnesium metasilicate, $MgSiO_3$, that is, with the composition of enstatite, but grading, by substitution of increasing quantities of iron, into clinohypersthene, $MgFe(SiO_3)_2$.

Clinoenstenite. MA 2, 220. Ab. MM 15, 419 (No. 72); 20, 450, (No. 110).
Winchell's name for the isomorphous series, $MgSiO_3$–$FeSiO_3$, of monoclinic pyroxenes, comprising clinoenstatite and clinohypersthene. Compare enstenite. Occurs in meteoric stones.

Clinoferrosilite. Ab. AM 21, 678 (Oct. 1936). MM 24, 225 (No. 151); 24, 606 (No. 158). MA 6, 261.
The iron metasilicate, $FeSiO_3$, end member of the monoclinic pyroxene series, containing up to 15% of the molecule $MgSiO_3$. Occurs as minute needles in obsidian. Colorless or faintly yellow. Africa; Wyoming; California; Iceland.

Clinoguarinite. Ab. AM 20, 541 (July 1935). Ab. MM 23, 627 (No. 146). CA 30, 6680.
Cesaro's name for a monoclinic form of guarinite. See also orthoguarinite.

Clinohedrite. Ap. I, 17. DT 633. Ab. MM 12, 133 (No. 55); 12, 381 (No. 58).
(*a*) Breithaupt's name for tetrahedrite, DS p. 137. (*b*) Monoclinic. Clinohedral crystals. Colorless to white, amethystine.

H 5.5. G 3.33. A basic silicate of zinc and calcium. $H_2ZnCaSiO_5$. Franklin, New Jersey.

Clinohypersthene. DT 557. Ab. MM 15, 419 (No. 72). MM 25, 23–29 (No. 160). CA 1, 2072.

A monoclinic dimorphous form of hypersthene. Typically magnesium-iron metasilicate. $MgFe(SiO_3)_2$.

Clinoptilolite. DT 644. AM 8, 94 (May 1923). Ab. AM 8, 169 (Sept. 1923); 17, 128–134 (Apr. 1932); 18, 170 (Apr. 1933). Ab. MM 20, 450 (No. 110). MM 23, 556 (No. 145). CA 26, 4774.

Monoclinic. Tabular crystals. "A dimorphous form of ptilolite." Schaller. Identical with crystallized mordenite from Hodoo Peak, Wyoming. A hydrous silicate of aluminum, calcium, sodium, and potassium. $(Ca,Na_2,K_2)O.Al_2O_3.10SiO_2.7H_2O$.

Clinopyroxene. Ab. MM 13, 366 (No. 62).

A collective name for the monoclinic pyroxenes.

Clino-triphylite. Ab. MM 24, 606 (No. 158). MA 6, 485.

"A variety of triphylite with polysynthetic twinning and optical extinction suggesting divergence from orthorhombic symmetry."

Clino-ungemachite. Ab. AM 22, 207 (Mar. 1937). AM 23, 314–328 (May 1938). Ab. MM 24, 625 (No. 158). MA 6, 443. CA 32, 889.

Monoclinic; pseudorhombohedral. Visibly indistinguishable from ungemachite, but material insufficient for chemical analysis. Chuquicamata, Chile.

Clinozoisite. Ap. I, 18; III, 21. DT 622. Ab. MM 11, 325 (No. 53). CA 13, 1992; 16, 3049.

Monoclinic. Colorless, light yellow, green, pink. A name proposed for those members of the zoisite-epidote group which contain less than 10% of the iron molecule and are optically positive. Prägratten, Tyrol; Proseč and Horky, Bohemia; Juarez, Lower California, Mexico; etc.

Cobalt-chalcanthite. DT 762. Ab. AM 7, 75 (Apr. 1922). MA 1, 122. Ab. MM 19, 353 (No. 98).

Triclinic. A hydrous sulfate of cobalt. $CoO.SO_3.5H_2O$. Formed by spontaneous dehydration of bieberite and other cobalt sulfates.

Cobalt-melanterite. **AM 8, 186 (Oct. 1923). Ab. MM 19, 338 (No. 98).**

Same as bieberite.

Cobaltnickelpyrite. **Ap. III, 21. DT 435. Ab. MM 17, 347 (No. 82). CA 8, 1556.**

Isometric. Small, pyritohedral crystals. Steel-gray. H 5–5.5. G 4.716. A member of the pyrite group containing 11.7–17.5% Ni and 6.6–10.6% (Fe,Ni,Co)S_2. Müsen, Westphalia, Germany. Probably a mixture of siegenite and pyrite.

Cobaltoadamite. **Ap. III, 22. DT 714. Ab. MM 16, 357 (No. 77).**

A pale rose-red to carmine variety of adamite in which cobalt replaces some of the zinc. Cap Garonne, Var, France.

Cobaltocalcite. **Ap. III, 22. DT 515. Ab. MM 15, 420 (No. 72).**

A bright red variety of calcite, containing cobalt (CoO, 1.27%), occurring as crystalline masses at Capo Calamita, Elba.

Cobaltochrompicotite. **Ab. MM 24, 607 (No. 158).**

A member of the spinel group containing cobalt. An aluminate and chromate of magnesium, iron, and cobalt. (Mg,Fe,Co)$(Cr,Al)_2O_4$(?).

Cobalt-oligonspar. **MA 6, 151.**

Same as cobaltosphaerosiderite.

Cobaltosphaerosiderite. **Ab. AM 20, 814 (Nov. 1935). MA 6, 151.**

Rhombohedral. Peach-blossom red. A carbonate of iron, manganese, magnesium, cobalt, and calcium.

Cobaltpyrite. **DT 434. Ab. AM 10, 180 (July 1925). MA 2, 339. Ab. MM 20, 450 (No. 110). CA 18, 2860.**

Isometric. Octahedrons. Color, like pyrite. H 6. G 4.965. A sulfide of iron and cobalt. (Fe,Co)S_2. Cobaltiferous pyrite, 13.90% Co. Gladhammar, Sweden. Distinct from "cobaltpyrites" = linneite.

Cobaltsmithsonite. **Ab. AM 13, 569 (Nov. 1928). Ab. MM 22, 617 (No. 134).**

A name suggested for the ternary, isomorphous mixture of the carbonates of zinc, cobalt, and magnesium. (Zn,Co,Mg)CO_3. See also warrenite.

Cochranite. **AM 5, 15 (Jan. 1920). Ab. MM 18, 376 (No. 87). MA 1, 231.**

"Artificially produced titanium dicyanide, $Ti(CN)_2$, found as minute, dark-blue cubes in blast-furnace 'bears.'" H 7.

Cocinerite. **DT 415. Ab. AM 4, 146 (Nov. 1919). MA 1, 18. Ab. MM 19, 338 (No. 98). CA 13, 2655.**

Massive. Silver-gray. H 2.5. G 6.14. Sulfide of copper and silver. Cu_4AgS. Perhaps a variety of stromeyerite. Ramos, Mexico.

Codazzite. **DT 521. Ab. AM 13, 570 (Nov. 1928). Ab. MM 21, 561 (No. 122). CA 23, 1081.**

Rhombohedral. Ashy brown. H 4. G 2.5. A carbonate of calcium, magnesium, iron, and cerium. $(Ca,Mg,Fe,Ce)CO_3$. The cerium is due to included parisite. Muzo, Colombia.

Cokeite. **Ab. MM 16, 357 (No. 77).**

Same as carbonite, DS p. 1021. A native coke.

Colerainite. **DT 687. Ab. AM 3, 165 (Aug. 1918). Ab. MM 18, 376 (No. 87). MA 1, 9. CA 12, 1161.**

Hexagonal. Rosettes of minute plates. Colorless to white. H 2.5–3. G 2.51. A hydrous silicate of magnesium and aluminum. $4MgO.Al_2O_3.2SiO_2.5H_2O$. Coleraine Township, Quebec; Chester County, Pennsylvania; St. John's Island, Red Sea.

Collbranite. **DT 740. Ab. AM 3, 177 (Sept. 1918). AM 6, 86 (May 1921). Ab. MM 18, 376 (No. 87). MA 1, 204. CA 15, 2049.**

Acicular, stellar aggregates. Black. Was regarded as identical with ilvaite; then as a highly ferriferous pyroxene; finally proved to be ludwigite. Suan district, Korea.

Collieite. **MA 4, 468. Ab. MM 22, 618 (No. 134).**

A variety of pyromorphite containing calcium and vanadium. Leadhills, Scotland.

Collinsite. **DT 720. Ab. AM 13, 201 (May 1928). MA 3, 470 Ab. MM 21, 561 (No. 122).**

Triclinic. Fibrous nodules. Light brown. H 3–3.5. G 2.95 A hydrous phosphate of calcium, magnesium, and iron. $2CaO.(Mg,Fe)O.P_2O_5.2\frac{1}{2}H_2O$. François Lake, British Columbia.

Colusite. AM 18, 528–537 (Dec. 1933). MA 5, 388. Ab. MM 23, 627 (No. 146). CA 28, 1957.

Isometric. Granular. Bronze-gray. H 3–4. G 4.2. Possibly a sulfide, arsenide, telluride, and antimonide of copper, iron, molybdenum, tin, and zinc. $(Cu,Fe,Mo,Sn,Zn)_4(S,As,Te,Sb)_{3-4}$. Said to be a member of the sphalerite group. Butte, Montana.

Comuccite. DT 449. Ab. AM 12, 379 (Oct. 1927). MA 3, 469. Ab. MM 21, 562 (No. 122).

Masses. Lamellar fibrous. G 5.65. A sulfantimonite of lead and iron. $18PbS.7FeS.15Sb_2S_3$. Probably identical with jamesonite. St. Georgis, Sardinia.

Conchite. Ap. II, 31. DT 522. MM 12, 363–370 (No. 58). Ab. MM 13, 193 (No. 60); 14, 121 (No. 64).

The material of molluscan shells, supposed to be a new form of $CaCO_3$, is aragonite.

Coolgardite. Ap. II, 31. MM 13, 268–290 (No. 61). Ab. MM 13, 366 (No. 62); 14, 121 (No. 64).

Described as a sesquitelluride of gold, silver, and mercury. Later proved to be a mixture of coloradoite, calaverite, sylvanite, and petzite. Kalgoorlie, Western Australia.

Cooperite. DT 441. Ab. AM 14, 339 (Sept. 1929); 18, 79 (Feb. 1933). MA 4, 145, 149, 500. Ab. MM 22, 618 (No. 134). MM 23, 188–195 (No. 138).

Tetragonal. Minute crystal grains. Steel-gray. H 4.5–5. G 9.5. A platinum sulfide. PtS. In platiniferous norite of the Bushveld, Transvaal, South Africa. This mineral was earlier classified as orthorhombic and isometric. Not to be confused with cooperite of Adam, 1869, nor with the trade name for an alloy of nickel, zirconium, tungsten, etc.

Copper-lovchorrite. MA 6, 343. CA 32, 888.

Amorphous. Emerald-green. A cupriferous variety of lovchorrite. Found with lovchorrite in kondrikovite veins. Kola Peninsula, Russian Lapland.

Copper-melanterite. AM 8, 186 (Oct. 1923). Ab. MM 19, 338 (No. 98).

Same as boothite.

Copper pitch ore. **AM 14, 313–318 (Sept. 1929). MA 4, 236. CA 24, 1319.**

Amorphous. Jet-black to brown. H 3–4. "A mixture of several hydrous oxides (of copper, iron and manganese), often with silicates and carbonates, in a more or less colloidal state." The mixture embraces chiefly the minerals tenorite, chrysocolla, limonite, malachite, and a manganese oxide. Various localities in Arizona; Germany; Urals; etc.

Copper-vudyavrite. **MA 6, 343. CA 32, 888.**

Identical with copper-lovchorrite.

Copper-zinc-melanterite. **Ab. AM 7, 74 (Apr. 1922). Ab. MM 19, 353 (No. 98).**

A member of the monoclinic melanterite group, in which iron is partly replaced by copper and zinc. See zinc-copper melanterite.

Cordierite-pinite. **Ab. MM 12, 381 (No. 58).**

Pinite derived from cordierite.

Cordylite. **Ap. II, 31. DT 526. Ab. MM 12, 381 (No. 58). CA 1, 2784.**

Hexagonal. In minute prisms, often with club-shaped, pyramidal terminations. Pale wax-yellow. H 4.5. G 4.31. A fluo-carbonate of the cerium metals and barium. $Ce_2F_2BaC_3O_9$. Also called barium-parisite. Narsarsuk, Greenland.

Corindite. **Ab. MM 19, 338 (No. 98).**

Trade name for an artificial product consisting mainly of corundum. Used as an abrasive.

Cornetite. **DT 716. Ab. AM 5, 17 (Jan. 1920); 5, 212 (Dec. 1920); 9, 233 (Nov. 1924). MA 1, 115; 3, 552. Ab. MM 18, 376 (No. 87). MM 19, 225–232 (No. 95). CA 14, 915; 17, 2096.**

Orthorhombic. Minute crystals and crusts. Peacock-blue. H 4–5. G 4.10. A basic copper phosphate. $Cu_3(PO_4)_2.3Cu(OH)_2$. Katanga, Belgian Congo; Bwana M'Kubwa, Northern Rhodesia.

Cornuite. (*a*) **DT 686. Ab. AM 3, 158 (July 1918); 6, 16 (Jan. 1921). Ab. MM 18, 377 (No. 87). MA 1, 378.** (*b*) **Ab. AM 11, 217 (Aug. 1926). MA 3, 114. Ab. MM 21, 562 (No. 122). CA 21, 41.**

(*a*) The colloidal phase of chrysocolla. Glassy. Blue, green. Hydrous copper silicate. $CuSiO_3.xH_2O$. (*b*) "A protein-like

gel. Dry protein 3%; insol. 0.08; water 97. Color golden-yellow." Found in cracks in diatomaceous earth. Hanover, Germany.

Coronadite. Ap. II, 32. DT 495. AM 18, 548 (Dec. 1933). Ab. MM 14, 397 (No. 67).

Massive. Fibrous. Black. H 4. G 5.246. A manganate of lead and manganese. $(Mn,Pb)Mn_3O_7$. Probably a mixture of hollandite and an unknown lead mineral. Coronado vein, Clifton-Morenci district, Arizona.

Corvusite. AM 18, 195–202 (May 1933). Ab. MM 23, 628 (No. 146). MA 5, 293. CA 28, 1307.

Purplish blue-black to brown. H 2.5–3. G 2.82. A hydrous vanadyl vanadate. $V_2O_4.6V_2O_5.xH_2O$. Carnotite region of Colorado and Utah.

Cosmochlore. Ap. I, 20. Ab. MM 11, 325 (No. 53).

Monoclinic. Emerald-green. H 5–6.

A silicate of chromium, aluminum, iron, calcium, and magnesium. In minute quantities in the Toluca meteoritic iron.

Coulsonite. Ab. MM 24, 607 (No. 158). MA 6, 489. CA 32, 2465.

Patches in magnetite. H 5.5–6.5. A vanadiferous iron ore assumed to have the composition $FeO.(Fe,V)_2O_3$. First named vanado-magnetite. Northeastern India.

Courtzilite. Ap. I, 20. Ab. MM 12, 381 (No. 58).

A kind of asphaltum allied to uintahite.

Crandallite. DT 711. Ab. AM 2, 42 (Mar. 1917); 15, 305 (Aug. 1930). MA 1, 206. Ab. MM 18, 377 (No. 87). CA 11, 321.

Probably orthorhombic. Compact to cleavable masses, or fibrous. White to light gray. H 4. A hydrous phosphate of calcium and aluminum. $CaO.2Al_2O_3.P_2O_5.6H_2O$. Formerly called kalkwavellite. Tintic district, Utah; Dehrn, Nassau, Germany.

Creedite. DT 469. Ab. AM 1, 87 (Nov. 1916). MA 1, 205 and 417. Ab. MM 18, 377 (No. 87). CA 10, 2336.

Monoclinic. Prismatic crystals, grains and radiating masses. Colorless, purple. H about 3.5. G 2.713–2.730. A hydrous sulfate and fluoride of calcium and aluminum. $2CaF_2.2Al(F,OH)_3.CaSO_4.2H_2O$. Near Wagon Wheel Gap, Colorado; Tonopah, Nevada.

Crenite. Ab. MM 14, 397 (No. 67).

Stalactitic calcite colored yellow by organic matter, identified as crenic acid or crenate of calcium.

Crestmoreite. DT 641. Ab. AM 3, 19 (Feb. 1918). Ab. MM 18, 377 (No. 87). MA 1, 21. CA 12, 462.

Monoclinic. Compact. Snow-white. H 3. G 2.2. A hydrous silicate of calcium. $4CaSiO_3.7H_2O$. Crestmore, California.

Crossite. Ap. I, 20. DT 577. Ab. MM 11, 35 (No. 49); 11, 325 (No. 53).

A soda-amphibole intermediate between glaucophane and riebeckite. Lath-shaped crystals and grains. G 3.16. Blue. Near Berkeley and elsewhere in California; Venzolasca, Corsica.

Cryolithionite. Ap. II, 33; III, 23. DT 465. Ab. MM 14, 397 (No. 67).

Isometric. Rhombic dodecahedrons, large. Colorless. H 2.5–3. G 2.777–2.778. A fluoride of lithium, sodium, and aluminum. $Li_3Na_3Al_2F_{12}$. Ivigtut, Greenland; Ural Mts.

Cryptoclase. Ab. MM 16, 357 (No. 77).

A variety of albite which, by repeated twinning according to the albite law, simulates monoclinic symmetry. It bears the same relation to albite that orthoclase does to microcline. Anorthoclase belongs to the isomorphous series of which orthoclase and cryptoclase are the end members.

Cryptotilite. AM 10, 143 (June 1925). Ab. MM 21, 562 (No. 122).

A variant of kryptotil, DS p. 561.

Crystolon. Ab. MM 18, 377 (No. 87).

Trade name for an artificially produced crystalline carbide of silicon, CSi, used as an abrasive. See carborundum.

Cubaite. Ap. I, 21. Ab. MM 11, 325 (No. 53).

A supposed cubic form of silica, later shown to be rhombohedrons of ordinary quartz. See guanabaquite. Guanabacoa, Cuba.

Cubeïte. Ap. I, 21. Ab. MM 12, 381 (No. 58).

Same as kubeite, a misprint for rubrite, DS p. 964. Later shown to be a hydrous sulfate of ferric iron and magnesium. See Ap. II, 90. Desert of Atacama, Chile.

Cubosilicite. **Ap. II, 33. Ab. MM 12, 381 (No. 58).**
Smalt-blue cubes, usually supposed to be pseudomorphs of chalcedony after fluorite, are considered to be a definite form of pseudocubic silica related to melanophlogite and cristobalite. Tresztya, Transylvania.

Cumengéite. **Ap. I, 21. DT 467. Ab. MM 11, 325 (No. 53). MA 4, 363.**
Tetragonal. Small crystals of pyramidal form. Light indigo-blue. H 2.5. G 4.67. An oxychloride of lead and copper. $PbCl_2.Cu(OH)_2$. Boléo, Lower California, Mexico.

Cumengite. (*a*) **Ap. I, 52. DT 467. Ab. MM 13, 366 (No. 62).** (*b*) **DS p. 203.**
(*a*) Same as cumengéite. (*b*) Same as volgerite.

Cuproadamite. **DT 714. Ab. MM 16, 358 (No. 77).**
A variety of adamite of a sea-green color, containing much copper, thus intermediate between adamite and olivenite. Cap Garonne, Var, France.

Cuprobinnite. **Ap. II, 33. Ab. MM 12, 382 (No. 58).**
Same as binnite, which has been proved to be tennantite.

Cuprocassiterite. **Ap. I, 21. Ab. MM 11, 325 (No. 53).**
A greenish earthy mass, due to oxidation of stannite. Black Hills, South Dakota.

Cuprocuprite. **Ab. MM 16, 358 (No. 77).**
Native copper containing admixed or dissolved cuprous oxide. $Cu + Cu_2O$.

Cuprogoslarite. **Ap. II, 33. DT 760. Ab. MM 12, 382 (No. 58).**
A variety of goslarite containing copper. A greenish blue incrustation. Galena, Kansas.

Cuproiodargyrite. **Ap. I, 21. DT 459. Ab. MM 11, 325 (No. 53). CA 8, 3169.**
An incrustation or filling of crevices formed by decomposition of stromeyerite. Sulfur-yellow. An iodide of copper and silver. CuI.AgI. Huantajaya, Chile.

Cuprolovchorrite. **Ab. MM 24, 607 (No. 158).**
Same as copper-lovchorrite.

Cuproplatinum. Ab. MM 24, 607 (No. 158). MA 6, 365. CA 32, 884.

A variety of platinum containing 8–13% copper, occurring as thin shells around grains of ferro-platinum. Urals. Same as "copper-bearing platinum."

Cuproplumbite. DT 727. Ab. AM 7, 181 (Oct. 1922); 8, 186 (Oct. 1923). MA 1, 203. Ab. MM 19, 338 (No. 98). CA 16, 3285.

"An impure bayldonite, occurring as green pseudomorphous crusts." "An alteration product of mimetite." A basic hydrous arsenate of copper and lead. $2R_3As_2O_8.3R(OH)_2.xH_2O$, with R = Cu, Pb; x = 0, 1 or 2. Tsumeb, South West Africa.

Cupropyrite. Ab. MM 12, 382 (No. 58); 19, 338 (No. 98).

(*a*) An alternative name for barracanite. (*b*) An impure form of chalcopyrite.

Cuprosklodowskite. Ab. AM 19, 235 (May 1934). MA 5, 389; 6, 345. CA 31, 1325.

Orthorhombic. Acicular needles. Greenish yellow. A hydrous silicate of copper and uranium. $CuO.2UO_3.2SiO_2.6H_2O$. Katanga, Belgian Congo.

Cuprovanadinite. Ab. MM 24, 607 (No. 158).

A variety of vanadinite containing copper (CuO, 1.55%). Kazakhstan.

Cuprovudyavrite. Ab. MM 24, 607 (No. 158).

Same as copper-vudyavrite.

Cuprozincite. DT 527. Ab. AM 7, 181 (Oct. 1922). MA 1, 203. Ab. MM 19, 338 (No. 98). CA 16, 3285.

Monoclinic. Botryoidal or earthy. Bluish green. H 3. G 4.104. A zinc-bearing malachite. A basic carbonate of copper and zinc. $RCO_3.R(OH)_2$, with R = Cu:Zn = 9:2. Tsumeb, South West Africa.

Curite. DT 746. Ab. AM 7, 128 (July 1922); 19, 309–315 (July 1934). MA 1, 249; 2, 355; 3, 233; 6, 90. CA 16, 1059.

Orthorhombic. In minute needles and massive. Reddish brown to deep orange-yellow. H 4.5. G 7.192. A hydrous uranate of lead. $2PbO.5UO_3.4H_2O$. Katanga, Belgian Congo.

Curtisite. DT 776. Ab. AM 11, 67 (Mar. 1926). AM 15, 169–173 (May 1930). MA, 3, 239; 4, 348. CA 24, 5259.

Orthorhombic (?). Flakes in cracks in sandstone. Greenish yellow. H less than 2. G 1.236. A hydrocarbon. Probably $C_{24}H_{18}$. Skaggs Springs, California.

Custerite. Ap. III, 24. DT 582. Ab. MM 17, 348 (No. 82). CA 7, 3947; 22, 4422.

Monoclinic. Fine granular masses. Greenish gray. Resembles greenish marble. H 5. G 2.91. A fluor-hydroxyl silicate of calcium. $Ca_2(OH,F)_2SiO_3$. Custer County, Idaho; Crestmore, California.

Cylindrite. Ap. I, 21; II, 33. DT 458. Ab. MM 11, 329 (No. 53). MM 14, 21–27 (No. 63).

Massive. In cylindrical forms separating under pressure into distinct shells or folia. Blackish lead-gray. H 2.5–3. G 5.42. A sulfostannate and sulfantimonate of lead. $6PbS.6SnS_2.Sb_2S_3$. Poopó, Bolivia.

D

Dachiardite. Ap. II, 113; III, 1. DT 657. AM 10, 421–428 (Nov. 1925). Ab. MM 14, 397 (No. 67). MA 3, 286. CA 1, 284; 8, 3171.

Monoclinic. Eight-sided prisms or cyclic twins. White or colorless. H 4–4.5. G 2.165. A hydrous silicate of sodium, potassium, calcium, and aluminum. $(Na_2,K_2,Ca)_3Al_4(Si_2O_5)_9$. Originally called "zeolite mimetica." San Piero in Campo, Island of Elba, Italy.

Daiton-sulphur. DT 398. Ab. AM 7, 213 (Dec. 1922). MA 1, 63. Ab. MM 19, 339 (No. 98). CA 19, 2005.

Originally described as a monoclinic sulfur, proves to be the ordinary orthorhombic form. Daiton, Formosa.

Dakeite. AM 22, 561–563 (May 1937). MA 6, 488. CA 32, 889.

Pisolites composed of micaceous plates. Green-yellow. H 2.5. G 2.51. A hydrous sulfate and carbonate of calcium, sodium, and uranium. $3CaCO_3.Na_2SO_4.UO_3.10H_2O$. Near Wamsutter, Wyoming.

Danubite. CA 17, 3151.

A supposed calcium-sodium feldspar. Discredited.

Darlingite. Ap. II, 33. Ab. MM 12, 382 (No. 58).

A variety of lydian-stone from Victoria, Australia.

Dashkesanite. Ab. MM 24, 608 (No. 158). MA 6, 438. CA 32, 885.

Monoclinic. Granular. Greenish black. H 4.5–5. G 3.59. A hydro-chloro-silicate chiefly of iron, aluminum, calcium, magnesium, potassium, and sodium. "A chlorine amphibole of the hastingsite group." Transcaucasia, Russia.

Davidite. Ap. II, 34; III, 24. Ab. MM 14, 397 (No. 67). MM 15, 281 (No. 71). MA 1, 70. CA 1, 974; 5, 2235.

Name given to a black mineral occurring in grains and cube-like crystals at Olary, South Australia. Said to contain over 50% TiO_2, with Fe, rare earths, U, V, and Cr. H 4. Later proved to be a mixture of ilmenite impregnated with rare-earth titanates, carnotite, and possibly a little rutile.

Davyno-cavolinite. Ab. MM 20, 451 (No. 110).

Hexagonal crystals. Intermediate between davyne and cavolinite. Vesuvius, Italy.

Deeckeite. Ap. III, 25. DT 607. Ab. MM 17, 348 (No. 82).

A pseudomorph after melilite. Pale yellow. G 2.1. A hydrous silicate chiefly of aluminum, calcium, and magnesium, but containing also potassium, sodium, and iron. $(H,K,Na)_2(Mg,Ca)(Al,Fe)_2(Si_2O_5)_5.9H_2O$. The characteristic "peg-structure" of melilite is due to its partial alteration to deeckeite. Kaiserstuhl, Baden, Germany.

Dehrnite. DT 703. AM 15, 303–305, and 324 (Aug. 1930). MA 4, 342 and 344. Ab. MM 22, 618 (No. 134). CA 25, 1769.

Hexagonal. Crystalline crusts and minute crystals. Grayish to greenish white. H about 5. G 3.04. A hydrous phosphate of calcium, sodium, and potassium. The mineral from Dehrn, Nassau, Germany is richer in sodium (see soda-dehrnite), conforming nearly to the formula $7CaO.Na_2O.2P_2O_5.H_2O$, whereas the mineral from near Fairfield, Utah, is described as $14CaO.2(Na,K)_2O.4P_2O_5.3(H_2O,CO_2)$.

Dekalbite. Ab. AM 11, 52–54 (Mar. 1926). MA 4, 152. Ab. MM 21, 562 (No. 122).

Suggested species name for the monoclinic pyroxene, $CaMg(SiO_3)_2$, or typical diopside, free from iron, corresponding with tremolite in the amphibole group. Dekalb, New York.

Delatynite. Ap. III, 25. DT 776. Ab. MM 16, 358 (No. 77).

A variety of amber from Delatyn in the Galician Carpathians, differing from succinite in containing rather more carbon (79.93%), less succinic acid (0.74–1.67%), and no sulfur.

Delorenzite. Ap. II, 34. DT 693. Ab. MM 15, 420 (No. 72). CA 2, 2204.

Orthorhombic. Prismatic crystals. Black. H 5.5–6. G 4.7. A titanate of iron, uranium, and yttrium. $2FeO.UO_2.2Y_2O_3.24TiO_2$. Craveggia, Piedmont, Italy.

Deltaite. DT 734. AM 15, 321 (Aug. 1930). Ab. MM 22, 618 (No. 134). MA 4, 344. CA 25, 1769.

Rhombohedral. Minute triangular-prismatic crystals, also fibrous crusts. Gray. H 5. G 2.95. A hydrous phosphate of calcium and aluminum. $8CaO.5Al_2O_3.4P_2O_5.14H_2O$. Near Fairfield, Utah.

Denhardtite. Ab. MM 14, 398 (No. 67).

A waxy hydrocarbon similar to pyropissite. Pale yellow. British East Africa.

Dennisonite. DT 733. AM 15, 322 (Aug. 1930). MA 4, 344. Ab. MM 22, 618 (No. 134). CA 25, 1769.

Probably hexagonal. Stout fibers forming botryoidal crusts. White. H 4.5. G 2.85. A hydrous phosphate of calcium and aluminum. $6CaO.Al_2O_3.2P_2O_5.5H_2O$. Near Fairfield, Utah.

Derbylite. Ap. I, 22. DT 738. MM 11, 176–179 (No. 52). Ab. MM 11, 326 (No. 53).

Orthorhombic. Minute prismatic crystals and twins. Black, brown. H 5. G 4.512–4.530. An antimonate and titanate of iron. $FeO.Sb_2O_5.5FeO.TiO_2$. In the cinnabar-bearing gravel of Tripuhy, near Ouro Preto, Minas Geraes, Brazil.

Devitrite. Ab. MM 23, 628 (No. 146).

Orthorhombic. A silicate of sodium and calcium. $Na_2O.3CaO.6SiO_2$. Common in devitrified commercial glasses. Perhaps the same as reaumerite.

Dewindtite. DT 736. Ab. AM 7, 162 (Sept. 1922). MA 1, 377; 3, 6 and 233. CA 16, 1722.

Orthorhombic. Minute prismatic or tabular crystals. Canary-yellow. G 4.08. A hydrous phosphate of uranium

and lead. $3PbO.5UO_3.2P_2O_5.12H_2O$. Katanga, Belgian Congo; Wölsendorf, Bavaria, Germany.

Diaboleite. DT 467. Ab. AM 9, 97 (Apr. 1924). MM 20, 78 (No. 102). Ab. MM 20, 451 (No. 110). CA 18, 36.

Tetragonal. Minute, tabular crystals. Sky-blue. H 2.5. G 6.412. Oxychloride of copper and lead. $2Pb(OH)_2.CuCl_2$. Resembles linarite. Mendip Hills, Somersetshire, England.

Diasporogelite. DT 506. Ab. MM 17, 348 (No. 82).

The colloidal form of aluminum hydroxide. $Al_2O_3.H_2O$. One of the ingredients of bauxite. Also called sporogelite and cliachite.

Dickite. DT 680. AM 15, 34 (Jan. 1930). MA 4, 247. Ab. MM 22, 618 (No. 134). CA 24, 4484.

Monoclinic. Tabular, transparent crystals. White. H 2–2.5. G 2.60–2.63. A basic hydrous silicate of aluminum. $H_4Al_2Si_2O_9$. Formerly called kaolinite from Anglesey, Wales, and Red Mt., Colorado.

Dicksbergite. Ap. I, 23. Ab. MM 11, 326 (No. 53).

A supposed new species, shown to be rutile. Dicksberg, Sweden.

Didymolite. Ap. III, 26. DT 582. Ab. MM 15, 420 (No. 72).

Monoclinic. Small twinned crystals. Dark gray. H 4–5. G 2.71. A silicate of aluminum and calcium. $2CaO.3Al_2O_3.9SiO_2$. Tatarka River, Yeniseisk district, Siberia.

Dienerite. DT 415. Ab. AM 12, 96 (Mar. 1927). MA 2, 54. Ab. MM 21, 562 (No. 122).

Isometric. Cubic crystals. Gray-white. A nickel arsenide. Ni_3As. Radstadt, Salzburg.

Dietzeite. Ap. I, 23. DT 740. Ab. MM 11, 104 (No. 50); 11, 326 (No. 53). CA 20, 885.

Monoclinic. Crystals prismatic, tabular; commonly fibrous, or columnar. Dark golden-yellow. H 3–4. G 3.698. An iodate and chromate of calcium. $2CaO.I_2O_5.CrO_3$. Atacama, Chile.

Diopside-enstatite. CA 1, 2072.

A pyroxene intermediate between diopside and enstatite, relatively poor in calcium.

Diopside-jadeite. MA 1, 382. Ab. MM 19, 339 (No. 98).
A pyroxene intermediate between jadeite and diopside. From the Tuxtla statuette; Tuxtla, Southeast Mexico.

Dipyrite. AM 9, 110 (May 1924). Ab. MM 20, 451 (No. 110).
Winchell's name for dipyre. Not to be confused with dipyrite of Readwin = pyrrhotite.

Dixenite. DT 688. Ab. AM 6, 93 (May 1921); 13, 344 and 347 (July 1928). MA 1, 149. Ab. MM 19, 339 (No. 98). CA 15, 1475.
Rhombohedral. Aggregates of thin folia. Nearly black. H 3–4. G 4.20. Hydrous arsenite and silicate of manganese. $MnSiO_3.2Mn_2(OH)AsO_3$. Langban, Sweden.

Doughtyite. Ap. II, 36. DT 765. Ab. MM 14, 398 (No. 67).
A white precipitate from the waters of Doughty Springs, Colorado. A hydrous aluminum sulfate. $Al_2(SO_4)_3.5Al_2(OH)_6.21H_2O$.

Drewite. Ab. AM 14, 440 (Nov. 1929). Ab. MM 21, 563 (No. 122).
"A variety of calcium carbonate precipitated from sea-water by bacterial action."

Droogmansite. DT 688. Ab. AM 11, 168 (June 1926). MA 3, 6. Ab. MM 21, 563 (No. 122). CA 21, 878.
Minute, radially-fibrous globules on sklodowskite. Orange-yellow. "Presumably uraniferous." Katanga, Belgian Congo.

Dubuissonite. Ap. II, 36. Ab. MM 14, 398 (No. 67).
A pink clay resembling montmorillonite, but different in its resistance to acids and in its fusibility. Near Nantes, France.

Dufreniberaunite. Ab. MM 17, 348 (No. 82).
A hydrous phosphate of iron and manganese, intermediate between dufrenite and beraunite. Hellertown, Pennsylvania.

Duftite. DT 714. Ab. AM 6, 140 (Sept. 1921). MA 1, 150. Ab. MM 19, 339 (No. 98). CA 16, 1552.
Minute curved crystals. Olive- to gray-green. H 3. G 6.19. A basic hydrous arsenate of lead and copper. $(Pb,Cu)_3(AsO_4)_2.(Pb,Cu)(OH)_2$. Near olivenite in appearance and bayldonite in composition. Tsumeb, South West Africa.

Dumontite. DT 736. Ab. AM 10, 131 (May 1925). MA 2, 233; 2, 383; 3, 6. CA 19, 626.

Orthorhombic (?). Minute flattened prisms. Pale yellow. A hydrous phosphate of uranium and lead. $2PbO.3UO_3.P_2O_5.5H_2O$. Chinkolobwe, Katanga, Belgian Congo.

Dundasite. Ap. I, 23; II, 37; III, 26. DT 529. Ab. MM 11, 326 (No. 53). MM 14, 167–169 (No. 65); 16, 272–277 (No. 76). CA 7, 1855; 8, 40.

Spherical aggregates of tufts of minute, radiating needles. White. H 2. G 3.25. A basic carbonate of lead and aluminum. $Pb(AlO)_2(CO_3)_2.4H_2O$. Dundas and Mt. Read, Tasmania; Trefriw, Carnarvonshire, Wales; Wensley, Derbyshire, England; etc.

Duparcite. Ab. AM 18, 180 (Apr. 1933). MA 5, 292. Ab. MM 23, 628 (No. 146). CA 28, 7206.

Tetragonal. Elongated prismatic crystals, radiated. Greenish gray. H 7.5. G 3.42. Essentially a silicate of aluminum and calcium. Azegour, Morocco. Near idocrase.

Durain. AM 5, 15 (Jan. 1920). Ab. MM 18, 378(No. 87).

"Dull, hard coal." Also called durite.

Durite. Ab. MM 24, 606 (No. 158).

Same as durain.

Dussertite. DT 718. Ab. AM 10, 334 (Sept. 1925). MA 2, 419. Ab. MM 20, 451 (No. 110). CA 19, 1238.

Hexagonal. Crusts of minute crystals. Green. H 3.5. G 3.75. A basic hydrous arsenate of calcium and iron. $Ca_3(AsO_4)_2.3Fe(OH)_3$. Jebel Debar, Constantine, Algeria.

Dutoitspanite. MA 5, 97. Ab. MM 23, 628 (No. 146).

Same as bultfonteinite.

E

Eakleite. DT 641. Ab. AM 2, 111 (Aug. 1917). AM 7, 23 (Feb. 1922); 8, 181 (Oct. 1923). Ab. MM 18, 378 (No. 87). MA 1, 206; 2, 253. CA 11, 2082.

Compact fibrous. Pale pink, white, or gray. H about 6.5. G 2.685–2.705 A hydrous silicate of calcium. $5CaSiO_3.H_2O$. Identical with xonotlite. Santa Barbara County, California; Isle Royale, Michigan.

Earlandite. **Ab. AM 22, 71 (Jan. 1937). MA 6, 341.**

Fine-grained nodules. Pale yellow to white. G 1.80–1.95. Hydrated calcium citrate. $Ca_3(C_6H_5O_7)_2.4H_2O$. In the sediments of Weddell Sea, Antarctica.

Eastonite. **DT 664. Ab. MM 12, 382 (No. 58); 20, 451 (No. 110). MA 5, 147.**

Monoclinic. Green-black. G 3.00. A mica related to biotite. A basic silicate of potassium, magnesium, and aluminum. $H_4K_2Mg_5Al_4Si_5O_{24}$. Easton, Pennsylvania. Not identical with eastonite of Gordon = vermiculite.

Ebelmenite. **Ap. II, 37. Ab. MM 14, 398 (No. 67).**

A variety of psilomelane containing potassium.

Echellite. **DT 656. AM 5, 1 (Jan. 1920) and 18, 31 (Jan. 1933). MA 1, 25. Ab. MM 19, 339 (No. 98). CA 14, 914.**

Orthorhombic. Fibrous spheroidal masses. White. H 5. A hydrous silicate of calcium, sodium, and aluminum. $(Ca, Na_2)O.2Al_2O_3.3SiO_2.4H_2O$. Sextant portage, Northern Ontario, Canada. Identical with thomsonite.

Ectropite. **DT 685. Ab. AM 2, 128 (Oct. 1917). MA 1, 19. CA 11, 2650.**

Monoclinic. Thin tabular crystals. Brown. H 4. G 2.46. A hydrous manganese silicate. $Mn_{12}Si_8O_{28}.7H_2O$. Langban, Sweden. AM 10, 418–421 (Nov. 1925). Proved to be a pseudomorph; identical with bementite.

Eggonite. **Ab. AM 15, 83 (Feb. 1930).**

Orthorhombic. A hydrous aluminum phosphate. Probably $AlPO_4.2H_2O$. Felsöbánya, Rumania.

Eglestonite. **Ap. II, 37; III, 26. DT 468. Ab. MM 13, 367 (No. 62). CA 1, 2454.**

Isometric. Minute, modified dodecahedrons. Brownish yellow, darkening on exposure to black. H 2–3. G 8.327. An oxychloride of mercury. Hg_4Cl_2O. Terlingua, Texas.

Eguéïite. **Ap. III, 27. DT 733. Ab. MM 16, 358 (No. 77). CA 8, 3172.**

Amorphous. Small nodules with fibrous lamellar structure. Yellowish brown. G 2.6. A basic hydrous phosphate of ferric iron with a little calcium and aluminum. $5(FePO_4)_2.\frac{1}{3}Ca_3(PO_4)_3.2Fe(OH)_3.20H_2O$. Eguéï, Sudan.

Egyrinaugite. Ab. MM 20, 451 (No. 110).

An incorrect form of aegirine-augite.

Ehrenwerthite. Ap. III, 27. DT 504. Ab. MM 15, 420 (No. 72).

Colloidal. Pseudomorphs after pyrite. Iron hydroxide. $Fe_2O_3.H_2O$. Same composition as goethite.

Eichbergite. Ap. III, 26. DT 445. Ab. MM 16, 358 (No. 77); 19, 247 (No. 95).

Massive. Iron-gray. H 6. G 5.36. A sulfobismuthite and sulfantimonite of copper and iron. $(Cu,Fe)_2S.3(Bi,Sb)_2S_3$. Eichberg, Austria.

Eicotourmaline. Ab. MM 23, 628 (No. 146).

Like tourmaline, but optically biaxial and containing no boron.

Eisenbrucite. Ab. AM 14, 42 (Jan. 1929). CA 21, 1788.

"Believed to be a ferriferous brucite." "Very close to brugnatellite."

Eisenpickeringite. MA 7, 12.

An iron pickeringite. Terlano, Trentino, Italy.

Ektropite. Ab. MM 18, 378 (No. 87). MA 1, 19.

Same as ectropite.

Elatolite. DT 513. Ab. AM 11, 107 (Apr. 1926). MA 2, 264 and 381. Ab. MM 20, 452 (No. 110).

Described as primary (magmatic) calcium carbonate, corresponding to the discredited alpha-calcium carbonate (stable above 970°C) of H. E. Boeke. It is represented by dendritic cavities in the nepheline-syenite of the Kola Peninsula, Russian Lapland.

Elbaite. DT 636. AM 17, 473–475 (Oct. 1932). Ab. MM 17, 348 (No. 82).

A hypothetical molecule assumed to be present in tourmaline, expressed by the formula $H_8Na_2Li_3Al_3B_6Al_{12}Si_{12}O_{62}$. (Winchell).

The pale red tourmaline from San Piero in Campo, Elba, is nearly pure elbaite.

Elbrussite. DT 682. Ab. AM 15, 537 (Nov. 1930). MA 4, 342. Ab. MM 22, 619 (No. 134). CA 25, 2944.

Massive. Chocolate-brown. H 2. G 2.281. A hydrous silicate of aluminum, iron, magnesium, etc. Near beidellite. Karatschaev district, Northern Caucasus.

ElDoradoite. AM 2, 26 (Feb. 1917). Ab. MM 18, 378 (No. 87).
A trade name for "a variety of quartz, usually blue . . . also sometimes yellow or bronze." ElDorado County, California.

Elfestorpite. Ab. MM 12, 382 (No. 58).
Same as elfstorpite.

Elfstorpite. Ap. I, 24. Ab. MM 11, 326 (No. 53).
Crystals and crystalline particles. Whitish gray. H 4. Inferred to be a hydrous arsenate of manganese. Sjö mine, Örebro, Sweden.

Ellestadite. AM 22, 977–986 (Sept. 1937). MA 7, 14. CA 32, 4479.
Hexagonal. Crystals and stringers. Lavender to rose. Resembles wilkeite. G 3.068. A calcium sulfate and silicate, containing chlorine and fluorine and minor amounts of CO_2 and P_2O_5. It is a sulfate-apatite, with P_2O_5 almost entirely replaced by SO_3 and SiO_2. The end member of the apatite group. Crestmore, California.

Ellsworthite. DT 694. Ab. AM 9, 16 (Jan. 1924). AM 12, 48–53 (Feb. 1927). MA 2, 248. Ab. MM 20, 452 (No. 110).
Isometric. Octahedral crystals and massive. Amber-yellow to dark chocolate-brown. H 4–4.5. G 3.608–3.758. Chiefly a hydrous titanoniobate (and tantalate) of calcium, uranium, and iron. $RO.Nb_2O_5.2H_2O$. Hybla, Ontario, Canada.

Elpidite. Ap. I, 24; II, 38. DT 581. CA 1, 2784.
Orthorhombic. Crystals crude-prismatic; usually fibrous columnar. White to brick-red. H nearly 7. G 2.524–2.594. A basic hydrous silicate of sodium and zirconium. $H_6Na_2Zr(SiO_3)_6$. Narsarsuk, Greenland; Kola Peninsula, Russian Lapland.

Emaldine. Ab. MM 22, 619 (No. 134).
Identical with emildine.

Emildine. MA 4, 83. Ab. MM 22, 619 (No. 134).
A spessartite garnet that contains yttrium, but no chromium, and little or no magnesium. Compare erinadine. South West Africa.

Emilite. Ab. MM 22, 619 (No. 134).
Identical with emildine.

Empressite. Ap. III, 27. DT 442. Ab. MM 17, 349 (No. 82). CA 8, 3169; 9, 42.

Massive. Fine granular. Pale bronze. H 3–3.5. G 7.510. A silver telluride. AgTe. Probably identical with muthmannite. Empress Josephine mine, Kerber Creek district, Colorado.

Enalite. Ab. AM 18, 223 (May 1933). MA 5, 293. Ab. MM 23, 628 (No. 146). CA 27, 47.

Tetragonal. Orange-yellow. G 4.873. A hydrous silicate of thorium and uranium. $(Th,U)O_2.nSiO_2.2H_2O$. A new variety of uranothorite. It is assumed that the Sn, Ce, Nd, and P_2O_5 are derived from associated cassiterite and monazite. Ena district, Japan.

Endeiolite. Ap. II, 38. DT 694. Ab. MM 12, 382 (No. 58).

Isometric. In minute octahedrons. Dark chocolate-brown. H 4. G 3.44. A silico-niobate of calcium, zirconium, sodium, cerium, etc. Perhaps $R''Nb_2O_6(OH)_2.R''SiO_3$, with R = Ca, Zr, Na, Ce, etc. Like chalcolamprite, but with hydroxyl replacing fluorine. A member of the pyrochlore group. Narsarsuk, Greenland.

Enelectrite. AM 20, 195 (Mar. 1935). MA 6, 52. CA 29, 3943.

Monoclinic. Lath-shaped crystals. Colorless. Probably a hydrocarbon. Occurs in amber. Chemahawin, Cedar Lake, Manitoba.

Englishite. DT 734. AM 15, 328 (Aug. 1930). MA 4, 344. Ab. MM 22, 619 (No. 134). CA 25, 1769.

Probably orthorhombic. Highly cleavable layers. White. H about 3. G about 2.65. A hydrous phosphate of calcium, potassium, and aluminum. $4CaO.K_2O.4Al_2O_3.4P_2O_5.14H_2O$. Near Fairfield, Utah.

Enigmatite. AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).

Preferred spelling for aenigmatite, DS No. 343.

Enstatite-augite. Ab. MM 15, 420 (No. 72). CA 1, 2072.

One of a group of monoclinic pyroxenes intermediate between the enstatite group and the calcium-bearing monoclinic pyroxenes (diopside, augite, etc.). The name is applied by Wahl to the whole group.

Enstatite-diopside. **Ab. MM 15, 420 (No. 72). CA 1, 2072.**
One of a group of monoclinic pyroxenes intermediate between enstatite and the calcium-bearing monoclinic pyroxene, diopside.

Enstenite. **DT 553. MA 2, 220. Ab. MM 20, 452 (No. 110). CA 18, 648.**
Winchell's name for orthorhombic pyroxenes of the isomorphous series $MgSiO_3$–$FeSiO_3$. Compare clinoenstenite.

Epidesmine. **Ap. III, 27. DT 649. Ab. MM 17, 349 (No. 82). CA 7, 3729.**
Orthorhombic. Minute crystals and crusts. Colorless to yellow. G 2.16. A hydrous silicate of aluminum, sodium, and calcium. $(Na_2,Ca)Al_2Si_6O_{16}.6H_2O$. Dimorphous with stilbite. Schwarzenberg, Saxony; Moore's Station, New Jersey; south of Reading, Pennsylvania.

Epididymite. **Ap. 1, 24; II, 38. DT 535. Ab. MM 11, 100 (No. 50); 11, 326 (No. 53).**
Orthorhombic. Crystals tabular, striated. Colorless. H 5.5. G 2.548. A basic silicate of sodium and beryllium. $HNaBeSi_3O_8$. Narsarsuk, Greenland; Langesundfiord, Norway.

Epidote-orthite. **Ab. MM 20, 452 (No. 110).**
An orthite-like mineral intermediate between orthite and epidote. Norway.

Epidotorthite. **Ab. AM 9, 41 (Feb. 1924). CA 16, 1376.**
"A rare-earth mineral." Sweden.

Epileucite. **Ab. MM 24, 608 (No. 158). MA 6, 418. CA 32, 885.**
Orthoclase-muscovite pseudomorphs after leucite. Ishim River, West Siberia.

Epinatrolite. **Ap. III, 28. Ab. MM 16, 358 (No. 77). MM 23, 245 (No. 139). CA 6, 2052; 27, 2652.**
"A less stable form of natrolite which loses its water at a lower temperature, but is otherwise identical in morphological and optical characters and chemical composition with normal natrolite." Earlier called metanatrolite.

Epi-sericite. **Ab. MM 24, 608 (No. 158).**
Sericite formed in the epi-(upper) zone of metamorphism.

Epistolite. **Ap. II, 39. DT 699. Ab. MM 12, 382 (No. 58).**
Monoclinic. Rectangular plates; commonly in curved folia with pearly luster. White. H 1–1.5. G 2.885. A hydrous

silico-niobate and titanate chiefly of sodium. Julianehaab, Greenland.

Eremeyevite. DT 741. AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936). Ab. MM 20, 452 (No. 110).

Preferred spelling for jeremejevite, DS No. 692.

Erikite. Ap. II, 39. DT 687. Ab. MM 14, 398 (No. 67).

Orthorhombic. Prismatic crystals. Yellow, brown. H 5.5–6. G 3.493. Essentially a silicate and phosphate of the cerium metals. Near Julianehaab, Greenland.

Erinadine. MA 4, 83. Ab. MM 22, 619 (No. 134).

A metamorphic garnet containing yttrium, together with chromium and magnesium. Compare emildine. Cape Peninsula, South Africa.

Erionite. Ap. I, 25. DT 656. Ab. MM 12, 382 (No. 58).

Orthorhombic. Aggregates of woolly fibers. White. G 1.997. A zeolite near stilbite in composition. A hydrous silicate of calcium, potassium, sodium, and aluminum. $H_2CaK_2Na_2Al_2Si_6O_{17}.5H_2O$. Durkee, Oregon.

Ermakite. Ab. MM 24, 608 (No. 158). CA 32, 887.

A brown waxy clay. A hydrous silicate of aluminum and iron. $(Al,Fe)_2O_3.3SiO_2.2H_2O$. Near Omsk, Siberia.

Errite. DT 604. Ab. AM 10, 107 (Apr. 1925). AM 13, 347, 348 (July 1928). MA 2, 251. Ab. MM 20, 452 (No. 110). CA 18, 3336.

Massive. Reddish brown. G 2.681. A hydrous silicate of manganese. $7MnO.8SiO_2.9H_2O$. Probably a variety of parsettensite. Val d'Err, Grisons, Switzerland.

Erzbergite. Ab. MM 13, 367 (No. 62).

A calcareous deposit consisting of alternate layers of calcite and aragonite. Erzberg, Eisenerz, Styria.

Eschwegeite. DT 699. Ab. AM 12, 356 (Sept. 1927). MA 3, 113. Ab. MM 21, 563 (No. 122). CA 20, 3668.

Isotropic. Pebbles. Dark reddish gray. H 5.5. G 5.87. A hydrous titanate, niobate, and tantalate of yttrium with a very little erbium. $5(Y,Er)_2O_3.6(Ta,Nb)_2O_5.10TiO_2.7H_2O$. Minas Geraes, Brazil.

Eschynite. AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).

Preferred spelling for aeschynite, DS No. 532.

Esmeraldaite. **Ap. II, 40. DT 506. Ab. MM 13, 367 (No. 62).**
Pod-shaped masses. Coal-black. H 2.5. G 2.578. A hydrous ferric oxide. $Fe_2O_3.4H_2O$. Resembles melanosiderite. Probably only a variety of limonite. Esmeralda County, California.

Estramadurite. **Ab. MM 16, 359 (No. 77).**
A massive variety of apatite. Estramadura, Spain.

Euchlorine. **Ap. I, 25. Ab. MM 12, 382 (No. 58).**
Orthorhombic. A thin incrustation on lava. Emerald-green. A basic sulfate of potassium, sodium, and copper. $4(K,Na)_2SO_4.6CuSO_4.3Cu(OH)_2$. Vesuvius, Italy (1869).

Eukotourmaline. **CA 31, 6141.**
A new Russian mineral. Description not given.

Eutecto-oranite. **Ab. MM 24, 613 (No. 158). Journal of Geology 21, 234–254.**
An intermediate member of the orthoclase-anorthite (Or-An, "oranite") series. "A perthitic feldspar, the composition of the two kinds taken together would range in composition from potash feldspar from 55% down to 45%, the rest being composed of albite with a maximum of 10%, and the remainder anorthite." Alling.

Eutectoperthite. **Ab. MM 24, 612 (No. 158). Journal of Geology 21, 234–254.**
An intermediate member of the orthoclase-albite, Or-Ab, series. "A perthitic feldspar, the composition of the two kinds taken together would range in composition from potash feldspar from 55% down to 45%, the rest being composed of anorthite to a maximum of 10%, and the remainder albite." Alling.

F

Faratsihite. **Ap. III, 28. DT 681. AM 1, 66 (Oct. 1916). Ab. MM 17, 349 (No. 82). CA 9, 1289.**
Monoclinic. Aggregates of microscopic hexagonal plates. Pale yellow. H soft. G over 2. A basic hydrous silicate of aluminum and iron. $H_4(Al,Fe)_2Si_2O_9$. Intermediate between kaolinite and nontronite. Recent X-ray investigations of Gruner, AM 20, 475 (July 1935), indicate the identity of faratsihite with nontronite or beidellite. Faratsiho, Madagascar.

Fasernephrite. Ap. III, 29. Ab. MM 16, 359 (No. 77).
A variety of nephrite showing, in part, a "fibrous structure owing to the parallel, rather than matted, aggregation of the actinolite fibers." Previously called nephritoid. Radauthal, Harz, Germany.

Favas. Ap. II, 40. DT 499, 500, 711.
Rolled pebbles, from diamond sands of Brazil, consisting almost entirely of zirconia, titania, or goyazite (hamlinite).

Federovite. Ap. I, 26.
Same as federowite.

Federowite. Fedorowite. Ap. I, 26; II, 85. Ab. MM 12, 383 (No. 58). MA 2, 305.
A monoclinic pyroxene which falls between egirite-augite and egirite, containing 9–13% alkalies and about 24% FeO. Ernici, Province of Rome, Italy.

Felite. Felith. Ap. II, 41. Ab. MM 12, 383 (No. 58).
A constituent of Portland cement clinkers.

Feloids. MA 2, 439. Ab. MM 20, 453 (No. 110).
"A group of minerals comprising the feldspars and feldspathoids."

Femaghastingsite. AM 13, 292, *et seq.* (July 1928). MA 4, 39. Ab. MM 22, 619 (No. 134).
A variety of hastingsite in which FeO more than equals MgO, but is less than double. It is intermediate between ferrohastingsite and magnesiohastingsite. Quebec and Vermont.

Feranthophyllite. Ab. MM 23, 629 (No. 146).
A contraction of ferroanthophyllite.

Feraxinite. Ab. MM 24, 609 (No. 158).
A contraction of ferroaxinite.

Ferganite. Ap. III, 29. Ab. MM 15, 421 (No. 72).
Scales. Sulfur-yellow. H 2. G 3.3. A hydrous uranium vanadate. $U_3(VO_4)_2.6H_2O$. Ferghana, Russian Turkestan.

Ferghanite. DT 736. CA 5, 1050.
Same as ferganite.

Fermorite. Ap. III, 29. DT 706. Ab. MM 15, 421 (No. 72). MM 16, 84–86 (No. 74). CA 6, 465.

Hexagonal. Crystalline masses. Pinkish white to white. H 5. G 3.518. A hydro-fluo-arsenate and phosphate of calcium and strontium, consisting largely of the arsenic analogue of apatite. $3[(Ca,Sr)_3(P,As)_2O_8].Ca(OH,F)_2$. Sitapar, India.

Fernandinite. Ap. III, 29. DT 726. MA 1, 207. Ab. MM 17, 349 (No. 82). CA 9, 426.

Massive. Cryptocrystalline, fibrous. Dull green. A hydrous calcium vanadyl vanadate. $CaO.V_2O_4.5V_2O_5.14H_2O$. Minasragra, Peru.

Ferrazite. DT 726. AM 5, 39 (Feb. 1920). MA 1, 18. MM 19, 340 (No. 98). CA 14, 392.

A granular pebble ("fava"). Yellowish white. G 3.0–3.3. A hydrous phosphate of barium and lead. $3(Ba,Pb)O.2P_2O_5.8H_2O$. Diamantina, Minas Geraes, Brazil.

Ferriallophane. DT 684. Ab. MM 17, 349 (No. 82). CA 8, 2328.

Colloidal. Dark brown. A variety of allophane containing much iron (Fe_2O_3, 21–25%). Near Moscow, Russia.

Ferriallophanoids. Ab. MM 17, 349 (No. 82).

A group of clays, mostly ocherous, including ferriallophane, sinopite, melinite, ochran, and plinthite.

Ferri-beidellite. Ab. MM 24, 609 (No. 158).

Same as iron-beidellite.

Ferrichrompicotite. Ab. MM 24, 601 (No. 158). CA 32, 885.

A hypothetical member of the spinel group. A ferrate, aluminate and chromate of iron and magnesium. $(Fe,Mg)(Cr,Al,Fe)_2O_4$.

Ferrichromspinel. Ab. MM 24, 601 (No. 158).

A hypothetical member of the spinel group. A ferrate, aluminate, and chromate of magnesium. $Mg(Cr,Al,Fe)_2O_4$.

Ferric iron sarcolite. Ab. MM 19, 340 (No. 98).

A hypothetical variety of sarcolite. $3CaO.Fe_2O_3.3SiO_2$. See ferri-sarcolite. Its possible existence was suggested by Schaller.

Ferriepidote. AM 12, 222 (May 1927). Ab. MM 20, 453 (No. 110).

Monoclinic. A basic orthosilicate of calcium and iron; an end member of the epidote series. One of the two members

which enter into the composition of epidote. $HCa_2Fe_3Si_3O_{13}$. Also called iron-epidote.

Ferrierite. DT 644. Ab. AM 4, 90 (July 1919). Ab. MM 18, 378 (No. 87). MA 1, 27. CA 13, 2169.

Orthorhombic. Spherical aggregates of thin, blade-shaped crystals. Colorless or white. H 3–3.5. G 2.150. A magnesium zeolite, related to mordenite. A hydrous silicate of aluminum, magnesium, and sodium. $Al_2(Si_2O_5)_5R'_2.6H_2O$, with $R'_2 = Mg:Na_2:H_2 = 1:1:1$. Kamloops Lake, British Columbia.

Ferri-gehlenite. AM 8, 186 (Oct. 1923). Ab. MM 19, 340 (No. 98); 20, 456 (No. 110).

"A possible end species." See iron-gehlenite.

Ferri-halloysite. Ab. MM 24, 609 (No. 158).

A variety of halloysite containing iron.

Ferrikalite. Ab. MM 21, 563 (No. 122).

An artificially prepared potassium-ferric sulfate. $K_6Fe_2(SO_4)_6.xH_2O$. Analogous to ferronatrite, DS No. 777.

Ferrimolybdite. DT 774. Ab. MM 17, 349 (No. 82). CA 22, 46.

Orthorhombic. Crystal fibers. Sulfur-yellow. H 1.5. G 4.5. A hydrous ferric molybdate. $Fe_2O_3.3MoO_3.8H_2O$. Formerly known as molybdite. Of frequent occurrence as an oxidation product of molybdenite.

Ferri-muscovite. Ab. AM 14, 440 (Nov. 1929). Ab. MM 21, 563 (No. 122).

"The ferric molecule, $H_2KFe'''_3(SiO_4)_3$, corresponding to muscovite."

Ferrinatrite. Ap. II, 42. DT 765. Ab. MM 14, 398 (No. 67).

To replace ferronatrite, DS No. 777, since the mineral to which that name was applied is a ferric, not a ferrous, sulfate.

Ferri-orthoclase. Ab. AM 14, 440 (Nov. 1929). Ab. MM 21, 563 (No. 122).

"The ferric molecule, $KFe'''Si_3O_8$, corresponding to orthoclase."

Ferri-paraluminite. Ab. AM 20, 404 (May 1935). Ab. MM 24, 609 (No. 158). CA 32, 889.

Crusts. Greenish gray. A hydrous sulfate of iron and aluminum. $2(Al,Fe)_2O_3.SO_3.15H_2O$. Saratov, Russia.

Ferripurpurite. Ab. MM 15, 421 (No. 72).

The iron end member of the purpurite series. A hydrous ferric phosphate. $2FePO_4.H_2O$.

Ferri-sarcolite. AM 8, 186 (Oct. 1923). Ab. MM 19, 340 (No. 98).

Hypothetical end members, $3CaO.Fe_2O_3.3SiO_2$ and $3Na_2O.Fe_2O_3.3SiO_2$, of the melilite group, corresponding to sarcolite ($3CaO.Al_2O_3.3SiO_2$) and soda-sarcolite ($3Na_2O.Al_2O_3.3SiO_2$).

Ferri-sicklerite. Ab. AM 22, 875 (July 1937). MA 6, 485. CA 31, 3829.

"An alteration rim about triphylite." Dark brown. G 3.271–3.391. A phosphate of manganese and iron. $12RO.5Fe_2O_3.9P_2O_5$ with R = Mn″ and Li. An intermediate member of the series triphylite—ferri-sicklerite—heterosite, in which iron predominates over manganese. Varuträsk, Sweden.

Ferrisymplesite. DT 721. Ab. AM 10, 134 (May 1925). MA 2, 382. Ab. MM 20, 453 (No. 110). CA 19, 229.

Fibrous. Amber-brown. G 2.885. A hydrous arsenate of ferric iron. $3Fe_2O_3.2As_2O_5.16H_2O$. Cobalt, Ontario, Canada.

Ferrisymplessite. Ab. AM 10, 134 (May 1925).

Misprint for Ferrisymplesite, q.v.

Ferrite. Ab. MM 16, 359 (No. 77).

(*a*) Pure, or nearly pure, metallic iron, as a crystalline constituent of manufactured iron and steel. (*b*) Native iron, such as the terrestrial iron from Disko Island, Greenland. (*c*) Ferruginous pseudomorphs after olivine, DS p. 455. (*d*) An amorphous iron hydroxide, occurring in many rocks in red or yellow particles, DS p. 1034.

Ferritungstite. Ap. III, 30. DT 775. Ab. MM 16, 359 (No. 77). CA 5, 3212; 6, 2728.

Hexagonal. Microscopic hexagonal plates; ocherous. Pale yellow to brownish yellow. A hydrous tungstate of ferric iron. $Fe_2O_3.WO_3.6H_2O$. Deer Trail district, Washington.

Ferro-åkermanite. MM 24, 609 (No. 158).

Same as iron-åkermanite.

Ferroamesite. MA 5, 39; 6, 334. Ab. MM 23, 629 (No. 146).

A hypothetical molecule, $H_4Fe_2Al_2SiO_9$, corresponding with amesite, $H_4Mg_2Al_2SiO_9$, to explain the composition of the chlorites.

Ferroanthophyllite. **DT 570. Ab. AM 6, 173 (Dec. 1921); 16, 250–256 (June 1931). MA 1, 253; 5, 32. CA 15, 3262.**

Orthorhombic. Splintery fibrous. Grayish green. Soft. G 3.24. A silicate of iron. Theoretically $FeSiO_3$. The iron end member of the anthophyllite series, complementary to magnesioanthophyllite. Later shown to be actinolite. Same as iron-anthophyllite of Warren. Idaho, etc.

Ferro-antigorite. **AM 13, 166 (May 1928). Ab. MM 21, 563 (No. 122). MA 3, 373; 6, 334.**

A hypothetical molecule, $H_4Fe''_3Si_2O_9$, corresponding to antigorite, $H_4Mg_3Si_2O_9$, to explain the composition of the chlorites. Described as iddingsite pseudomorphous after fayalite, Ap. II, 54.

Ferroaxinite. **Ap. II, 11. Ab. MM 15, 421 (No. 72).**

Axinite consists of isomorphous mixtures of ferroaxinite, $8SiO_2.2Al_2O_3.2FeO.H_2O.4CaO.B_2O_3$, and manganoaxinite.

Ferrobrucite. **Ap. III, 30. DT 508. Ab. MM 16, 360 (No. 77).**

A variety of brucite containing iron.

Ferro-calderite. **Ab. AM 13, 33 (Jan. 1928). Ab. MM 21, 564 (No. 122).**

A variety of garnet containing "25.34% skiagite, 68.56% calderite." India.

Ferrochromite. **AM 8, 186 (Oct. 1923). Ab. MM 19, 340 (No. 98).**

Same as chromite.

Ferro-chrysotile. **Ab. MM 24, 610 (No. 158). MA 6, 259.**

The molecule $H_4Fe_3Si_2O_9$, present in ferruginous chrysotile.

Ferrocolumbite. **AM 13, 466 (Sept. 1928).**

An iron-rich variety of columbite. Western Australia.

Ferrodolomite. **MM 24, 616 (No. 158).**

A variety of dolomite with formula $CaFe(CO_3)_2$. Also called iron-dolomite.

Ferroferrite. **AM 8, 186 (Oct. 1923). Ab. MM 19, 340 (No. 98).**

Same as magnetite.

Ferrohalloysite. **CA 32, 85.**

Layers and colloform masses in green clays. Brown. H 1.5. G near 2.2. Intermediate between halloysite and nontronite.

A hydrous silicate of aluminum and iron. $(Al,Fe)_2O_3.2SiO_2.3H_2O$, with $Al_2O_3:Fe_2O_3 = 2:1$. Taman Peninsula.

Ferrohastingsite. DT 578. AM 13, 287–296 (July 1928). MA 4, 39. Ab. MM 22, 619 (No. 134).

A variety of hastingsite rich in iron, FeO being considerably more than double MgO. This is the original hastingsite from Dungannon, Hastings County, Ontario, Canada. Idaho; Canada; etc.

Ferroludwigite. DT 740. Ab. AM 2, 69 (May 1917). Ab. MM 18, 379 (No. 87).

"The ferrous end member of the ludwigite group." $FeO.Fe_2O_3.3MgO.B_2O_3$.

Ferronemalite. Ab. MM 16, 360 (No. 77).

A variety of nemalite containing ferrous oxide (FeO, 5%). Caucasus.

Ferropallidite. Ap. II, 42; III, 30 and 76. DT 757. Ab. MM 13, 367 (No. 62). MA 3, 479.

Granular. White. A hydrous sulfate of ferrous iron. $FeSO_4.H_2O$. Apparently identical with szomolnokite. Near Copiapo, Chile.

Ferro-paraluminite. MM 24, 609 (No. 158).

Same as ferri-paraluminite.

Ferropicotite. DT 488. Ab. MM 16, 360 (No. 77). MA 3, 408.

A variety of spinel in which part of its magnesium is replaced by ferrous iron and part of its aluminum by ferric iron. $(Mg,Fe)O.(Al,Fe)_2O_3$.

Ferroplatinum. Ab. MM 16, 360 (No. 77).

A variety of platinum containing iron. Same as iron-platinum.

Ferroplumbite. CA 19, 2621.

Grains. G 5.98. A ferrate of lead. $PbO.2Fe_2O_3$. Jacobsberg, Sweden.

Ferroprehnite. Ap. III, 30. Ab. AM 7, 164 (Sept. 1922). Ab. MM 17, 350 (No. 82). MA 3, 542.

A prehnite containing 6.58% Fe_2O_3. Pale green. Adams Sound, Baffin Island, Arctic Canada.

Ferrorhabdite. Ab. MM 17, 350 (No. 82).
Same as rhabdite.

Ferroroemerite. Ferrorömerite. Ap. II, 42. Ab. MM 13, 367 (No. 62).
Same as roemerite (römerite), the name being given to distinguish it from zinc-roemerite.

Ferroschallerite. DT 604. AM 15, 345 (Aug. 1930); 22, 358 (May 1937). MA 4, 345. Ab. MM 22, 620 (No. 134). CA 25, 1765.
An iron-bearing variety of schallerite. Hexagonal (?). G 3.44. A hydro-chloro-silicate and arsenite of manganese and iron. $(Fe,Mn)_8(Si,As)_6O_{15}(OH,Cl)_{10}$. Franklin, New Jersey.

Ferrosilite. AM 6, 87 (May 1921). MA 6, 260. Ab. MM 19, 340 (No. 98). CA 27, 3170; 30, 2137.
Name given to the ferrous end member of the isomorphous series $(Ca,Fe)(SiO_3)_2$, the ferrous metasilicate, $FeSiO_3$. Identical with iron-hypersthene. Monoclinic. Minute needles in obsidian. Lake Naivasha, Kenya Colony, East Africa.

Ferro-spessartite. Ab. AM 13, 33 (Jan. 1928). Ab. MM 21, 564 (No. 122).
An iron-manganese garnet. India.

Ferrostilpnomelane. Ab. AM 23, 415 (June 1938).
The hydrous ferrous type of stilpnomelane. Otago, New Zealand.

Ferrothorite. Ab. AM 14, 78 (Feb. 1929). Ab. MM 21, 564 (No. 122). CA 23, 2125.
Large reddish brown crystals. A ferriferous thorite. (Fe_2O_3, 13.1%). Madagascar.

Ferrotremolite. AM 17, 472 (Oct. 1932). MA 5, 216. Ab. MM 23, 629 (No. 146). CA 27, 2652.
The end member, $H_2Ca_2Fe_5Si_8O_{24}$, of the tremolite-actinolite series. Iron replaces much of the magnesium, actinolite being really an intermediate member.

Ferruccite. Ab. AM 19, 555 (Nov. 1934). MA 5, 390. Ab. MM 23, 629 (No. 146). CA 29, 4698.
Orthorhombic. Minute crystals. G 2.496. A sodium fluoborate. $NaBF_4$. Vesuvius, Italy.

Fersmannite. **DT 690. Ab. AM 16, 92 (Feb. 1931). MA 4, 246. Ab. MM 22, 620 (No. 134). CA 25, 4493.**

Monoclinic. Pseudotetragonal. Brown. H 5.5. G 3.44. A fluo-titano-silicate of sodium and calcium. $2Na_2(O,F_2).4CaO.4TiO_2.3SiO_2$. Chibines (Khibin) Mts., Russian Lapland.

Fervanite. **DT 725. AM 16, 273–277 (July 1931). MA 4, 498 Ab. MM 22, 620 (No. 134). CA 25, 5117.**

Probably monoclinic. Fibrous. Golden brown. A hydrous vanadate of iron. $2Fe_2O_3.2V_2O_5.5H_2O$. Carnotite district of Colorado and Utah.

Finnemanite. **DT 737. Ab. AM 8, 230 (Dec. 1923). MA 2, 147. Ab. MM 20, 453 (No. 110). CA 17, 3307.**

Hexagonal. Prisms and crystalline crusts. Gray, olive-green to black. H 2.5. G 7.08–7.265. A chloro-arsenite of lead. $Pb_5Cl(AsO_3)_3$. Langban, Sweden.

Fizelyite. **Ap. III, 30. DT 448. Ab. AM 15, 83 (Feb. 1930). Ab. MM 17, 350 (No. 82); 21, 564 (No. 122). MA 3, 8. CA 20, 3408.**

Monoclinic. Deeply striated prisms. Dark lead-gray. H 2. A sulfantimonite of lead and silver. $5PbS.Ag_2S.4Sb_2S_3$. Kisbánya, Rumania.

Flagstaffite. **DT 776. AM 5, 169 (Oct. 1920); 6, 133 (Sept. 1921). MA 1, 122 and 260. Ab. MM 19, 341 (No. 98). CA 15, 220 and 3959.**

Orthorhombic. Minute prisms. Colorless. Very soft. G 1.092. An oxygenated hydrocarbon. $C_{10}H_{22}O_3$. Near Flagstaff, Arizona.

Flajolotite. **Ap. III, 30. DT 737. Ab. MM 16, 360 (No. 77). CA 8, 3172.**

Nodular masses. Lemon-yellow. A hydrous antimonate of iron. $4FeSbO_4.3H_2O$. Constantine, Algeria.

Flokite. **DT 644. Ab. AM 3, 30 (Mar. 1918). AM 8, 169 (Sept. 1923). Ab. MM 18, 379 (No. 87). MA 1, 23. CA 12, 796.**

Monoclinic. Slender prismatic crystals. Colorless, or yellowish green. H 5. G 2.102. A hydrous silicate of calcium, sodium, and aluminum. $(Ca,Na_2)O.Al_2O_3.9SiO_2.6H_2O$. May be identical with mordenite. Iceland.

Florencite. Ap. II, 42; III, 30. DT 711. MM 12, 244–248 (No. 57). Ab. MM 12, 383 (No. 58).

Hexagonal. Rhombohedral crystals. Pale yellow. H about 5. G 3.586. A basic phosphate of aluminum and the cerium metals, closely analogous to goyazite. $AlPO_4.CePO_4.2Al(OH)_3$. In the sands of Tripuhy and Diamantina, Brazil.

Floridin. Floridine. Ab. MM 20, 453 (No. 110).

"Trade-name for fuller's earth worked by the Floridin Company at Quincy, Florida."

Fluoborite. DT 742. Ab. AM 12, 266 (June 1927). AM 14, 169–172 (May 1929). MA 3, 110 and 274. Ab. MM 21, 564 (No. 122). CA 20, 1776.

Hexagonal. Prisms. Colorless. H about 3.5. G 2.89. A hydro-fluo-borate of magnesium. $3MgO.B_2O_3.3Mg(F,OH)_2$. Norberg, Sweden; Sterling Hill, New Jersey.

Fluocollophanite. Ap. III, 30. Ab. MM 16, 360 (No. 77).

Amorphous; colloidal. A variety of collophanite containing fluorine; an important constituent of the sedimentary calcium phosphates.

Fluor-adelite. Ap. I, 26. Ab. MM 11, 229 (No. 52); 11, 326 (No. 53).

Same as tilasite.

Fluor-amphibole. AM 20, 543 (Aug. 1935). Ab. MM 24, 610 (No. 158). MA 6, 353.

Artificial amphibole with fluorine replacing the hydroxyl of hydroxyl-amphibole.

Fluor-annite. MM 24, 610 (No. 158). MA 6, 427. CA 32, 886.

A variety of annite in which fluorine replaces hydroxyl. $F_2KFe''_3(AlSi_3)O_{10}$.

Fluor-biotite. MM 24, 610 (No. 158). CA 32, 886

A variety of biotite in which fluorine replaces hydroxyl. $F_2K(Mg,Fe'')_3(AlSi_3)O_{10}$.

Fluor-diopside. AM 8, 186 (Oct. 1923). Ab MM 19, 341 (No. 98).

A fluoriferous diopside; same as mansjöite. Granular. Grayish green. G 3.236. Mansjö Mt., Sweden.

Fluorene. Ab. MM 24, 610 (No. 158).

An organic compound formed by the burning of pyritous shale. $C_{13}H_{10}$. Bohemia.

Fluor-herderite. Ap. I, 35. Ab. MM 12, 383 (No. 58).
Herderite containing fluorine with little or no hydroxyl. $Ca(BeF)PO_4$. The pure mineral has not yet been found. See also hydro-fluor-herderite.

Fluor-lepidomelane. MM 24, 610 (No. 158). CA 32, 886.
A variety of lepidomelane in which fluorine replaces hydroxyl. $F_2K(Mg,Fe'')_3[(Al,Fe''')Si_3]O_{10}$.

Fluormanganapatite. AM 8, 186 (Oct. 1923). MA 1, 125. Ab. MM 19, 341 (No. 98).
A manganiferous variety of fluorapatite. (MnO, 4.93%).

Fluor-meionite. Ab. AM 7, 214 (Dec. 1922). MA 1, 213. Ab. MM 19, 341 (No. 98).
A variety of meionite containing 2.74% fluorine. Trumbull. Connecticut.

Fluor-meroxene. MM 24, 610 (No. 158). MA 6, 427. CA 32, 886,
A variety of meroxene in which fluorine replaces hydroxyl. $F_2KMg_3[(Al,Fe''')Si_3]O_{10}$.

Fluor-phlogopite. MM 24, 610 (No. 158). MA 6, 427. CA 32, 886.
A variety of phlogopite in which fluorine replaces hydroxyl. $F_2KMg_3(AlSi_3)O_{10}$.

Fluor-siderophyllite. MM 24, 610 (No. 158). MA 6, 427. CA 32, 886.
A variety of siderophyllite in which fluorine replaces hydroxyl. $F_2KFe''_3[(Al,Fe''')Si_3]O_{10}$.

Fluor-spodiosite. Ab. MM 16, 360 (No. 77).
Same as spodiosite.

Fluortamarite. Fluotamarite. DT 578. MA 2, 221. Ab. MM20, 453 (No. 110).
An error for fluotaramite.

Fluotaramite. Ab. AM 11, 217 (Aug. 1926). Ab. MM 20, 453 (No. 110). MA 3, 109; 6, 315.
Monoclinic. Needle-like crystals. Black, tinged green. G 3.231–3.318. A fluorine-bearing variety of taramite (a soda-iron amphibole). Wali-tarama, Mariupol, Ukraine, Russia.

Folgerite. Ap. I, 26. Ab. MM 11, 326 (No. 53).
Same as pentlandite. Sudbury, Ontario, Canada.

Fornacite. DT 715. AM 5, 16 (Jan. 1920). Ab. MM 18, 379 (No. 87). MA 1, 147.

Monoclinic (?). Small prismatic crystals on dioptase. Olive-green. A basic chromo-arsenate of lead and copper. Djoue, French Equatorial Africa.

Foshagite. DT 640. AM 10, 97 (Apr. 1925). MA 2, 520. Ab. MM 20, 453 (No. 110). CA 19, 2007.

Orthorhombic. Compact fibrous. Snow-white. H 3. G 2.36. A basic hydrous silicate of calcium. $H_2Ca_5(SiO_4)_3.2H_2O$. Probably an altered hillebrandite. Crestmore, California.

Foshallassite. MA 7, 10. CA 32, 4108.

Scaly, spheroidal aggregates. White. H 2.5–3. G 2.5. A basic hydrous silicate of calcium. $3CaO.2SiO_2.3H_2O$. Related to foshagite. Yukspor Mt., Kola Peninsula, Russian Lapland.

Foucherite. Ap. III, 31. DT 733. Ab. MM 16, 360 (No. 77).

Amorphous. A basic hydrous phosphate of ferric iron, with some aluminum and calcium. Possibly identical with borickite. Fouchères, Aube, France.

Fourmarierite. DT 746. Ab. AM 9, 212 (Oct. 1924); 19, 309–315 (July 1934). MA 2, 343; 2, 384; 2, 521; 3, 233; 6, 90. CA 18, 3579.

Orthorhombic. Tabular crystals. Dark orange-red. H 3–4, G 6.046. A hydrous lead uranate. $PbO.4UO_3.5H_2O$. Katanga. Belgian Congo; Wölsendorf, Bavaria, Germany.

Fraipontite. DT 633. Ab. AM 13, 492 (Sept. 1928). MA 3, 368. Ab. MM 21, 564 (No. 122). CA 23, 1081.

Fibrous crusts like asbestus. Yellowish white. A hydrous silicate of zinc and aluminum. $8ZnO.2Al_2O_3.5SiO_2.11H_2O$. Vieille-Montagne, Belgium (?).

Framesite. AM 5, 16 (Jan. 1920). Ab. MM 18, 379 (No. 87).

A variety of black bort. South Africa.

Franckeite. Ap. I, 26. DT 458. Ab. MM 11, 326 (No. 53). MM 14, 21–27 (No. 63).

Hexagonal or orthorhombic. (?). In imperfect, radiated folia. Blackish gray to black. H 2.75. G 5.55. A sulfostannate and sulfantimonate of lead. $5PbS.2SnS_2.Sb_2S_3$. Near Poopó, and elsewhere in Bolivia.

Freirinite. DT 727. AM 9, 30 (Feb. 1924). MA 2, 337. Ab. MM 20, 454 (No. 110). CA 18, 1262.

Probably tetragonal. Fine flakes. Lavender to turquois-blue. A basic hydrous arsenate of copper, calcium, and sodium. $6(Cu,Ca)O.3Na_2O.2As_2O_5.6H_2O$. Formerly called lavendulan, from which mineral it is distinct. Department of Freirini, Chile.

Fremontite. Ap. III, 31. DT 712. Ab. MM 17, 350 (No. 82).

Monoclinic or triclinic. Large rough crystals; cleavable masses. White. H 5.5. G 3.04. A sodium montebrasite. A hydro-fluo-phosphate of aluminum, sodium, and lithium. $(Na, Li)Al(OH,F)PO_4$. Originally called natramblygonite and later natromontebrasite. Canon City, Fremont County, Colorado.

Fuggerite. Ap. I, 27; III, 31. DT 607. Ab. MM 11, 326 (No. 53).

Tetragonal (?). Rough, four-sided, tabular crystals. White, light apple-green. H 6.5. G 3.18. A member of the gehlenite—akermanite series, with 3 molecules of akermanite and 10 of gehlenite. A silicate of calcium, magnesium, aluminum, iron, and sodium. Monzonithal, Trentino, Italy.

Fülöppite. DT 447. Ab. AM 15, 201 (May 1930). MM 22, 179–184 (No. 127). Ab. MM 22, 620 (No. 134). CA 24, 1318.

Monoclinic. Small crystals, prismatic or rhombohedral in habit. Lead-gray. H over 2. G 5.23. An acid sulfantimonite of lead. $2PbS.3Sb_2S_3$. Baia Mare (formerly Nagybánya), Rumania.

Fulvite. MA 4, 171; 5, 104. Ab. MM 21, 564 (No. 122).

Isometric. Dendritic crystals. Brown. Supposed to be titanium monoxide, TiO. Later shown to be perovskite. A slag mineral.

Furnacite. DT 715. MA 1, 147. Ab. MM 17, 350 (No. 82). CA 10, 2452.

Same as fornacite.

Fusain. AM 5, 16 (Jan. 1920). Ab. MM 18, 379 (No. 87).

A constituent of coal, otherwise known as mineral charcoal.

Fusite. MM 24, 606 (No. 158).

Same as fusain.

G

Gageite. Ap. III, 31. DT 685. Ab. MM 16, 361 (No. 77). CA 5, 1043; 21, 3031.

Orthorhombic (?). Radiating groups of acicular crystals. Colorless. G 3.584. A hydrous silicate of manganese, magnesium, and zinc. $(Mn,Mg,Zn)_{16}(SiO_4)_6(OH)_8.3H_2O$. (Berman). Franklin, New Jersey.

Gahnospinel. Ab. AM 23, 293 (Apr. 1938). MM 24, 554 (No. 158). CA 31, 7799.

A gem magnesium-zinc spinel containing zinc up to 18.2%, approaching gahnite in composition. Blue. H 7.75–8. G 3.967 and less. Ceylon.

Gainite. Ab. MM 24, 610 (No. 158).

Same as hainite.

Gajite. Ap. III, 32. DT 531. Ab. MM 16, 361 (No. 77). CA 5, 2795.

Rhombohedral. Fine granular. White. H 3.5. G 2.619. A basic hydrous calcium-magnesium carbonate. Plešce, Croatia, Jugoslavia.

Galafatite. Ap. III, 32. Ab. MM 17, 351 (No. 82). CA 5, 1250.

Error for calafatite.

Galaxite. AM 17, 1–18 (Jan. 1932). MA 5, 51. Ab. MM 23, 629 (No. 146). CA 26, 4773.

Minute grains. Black. H 7.5. G 4.234. Manganese aluminate. $MnAl_2O_4$. Galax, Alleghany County, North Carolina.

Gamma-chrysotile. MA 6, 259.

"The rock-forming variety, distinguished from vein chrysotile by its higher refractive index and somewhat different chemical composition."

Gamma-dahllite. CA 7, 3944.

A calcium carbonate phosphate. A variety of dahllite.

Gamma-selenium. MA 6, 357. CA 32, 885.

The rhombohedral modification of selenium. Found on burning heaps of carboniferous sediments rich in pyrite. Kladno, Czechoslovakia.

Gamma-sulphur. Ap. I, 66; III, 75. DT 398.

A third allotropic (monoclinic) form of sulfur. Island of Vulcano, Italy.

Garnet-jade. **Ab. MM 24, 623 (No. 158).**
A jade-like variety of grossularite garnet. Transvaal, South Africa. Called also Transvaal jade and South African jade.

Gauslinite. **Ab. MM 21, 564 (No. 122).**
A local name for burkeite. Searles Lake, California.

Gavite. **DT 678. Ab. AM 4, 132 (Oct. 1919). AM 7, 167 (Oct. 1922). MA 1, 20; 6, 474. CA 13, 2495.**
A coating on garnet, chlorite, etc. White, yellowish. G 2.432. An acid metasilicate of magnesium and iron. $H_4(Mg, Fe)_4Si_5O_{16}$. New analysis gives $H_6(Mg,Fe)_5Si_6O_{20}$. Probably a variety of talc. Gava Valley, Italy.

Gaylussite. **AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).**
Preferred spelling for gay-lussite, DS No. 297.

Gedroitsite. **Ab. AM 23, 294 (Apr. 1938). MA 7, 60. CA 32, 3303.**
"An artificial crystalline aggregate produced by adding sodium aluminum solution to sodium silicate solution and allowing the resultant precipitate to stand for several years."

Geikielite. **Ap. I, 28; II, 44. DT 487. MM 10, 145–147 (No. 46). Ab. MM 13, 307 (No. 61). MM 14, 160–166 (No. 65).**
Hexagonal, rhombohedral. Usually in rolled pebbles. Bluish to brownish black. H 6. G 3.97–4.00. A titanate of magnesium and iron. $(Mg,Fe)TiO_3$. Belangoda and Rakwana districts, Ceylon.

Geldiadochite. **Ab. MM 18, 380 (No. 87).**
The gel-form equivalent to crystalloid form of diadochite.

Geldolomite. **Ab. MM 19, 341 (No. 98).**
Same as gurhofian, the amorphous, colloidal form of dolomite.

Gelfischerite. **Ab. MM 18, 380 (No. 87).**
The gel-form equivalent to the crystalloid form of fischerite.

Gelite. **CA 29, 5786.**
Description not abstracted. Uruguay.

Gelmagnesite. **Ab. MM 19, 341 (No. 98).**
The amorphous, colloidal form of magnesite occurring in serpentine rocks.

Gelpyrophyllite. **Ab. MM 18, 380 (No. 87).**
The gel-form equivalent to the crystalloid form of pyrophyllite.

Gelvariscite. **Ab. MM 18, 380 (No. 87).**
The gel-form equivalent to the crystalloid form of variscite.

Genevite. **DT 609. Ab. AM 13, 158 (Apr. 1928). MA 3, 368. Ab. MM 21, 564 (No. 122). CA 23, 4649.**
Tetragonal. Prismatic. Gray. G 3.16. A silicate of calcium and aluminum. Referred to sarcolite by W. F. Foshag. "Possibly identical with vesuvianite." Sidi bou Otmane, Morocco.

Georceixite. **Ap. II, 46; III, 34. DT 711. CA 1, 32.**
Microcrystalline; in rolled pebbles ("favas"). Brown. H 6. G 3.036–3.123. A basic phosphate of barium and aluminum (with small amounts of calcium, cerium, and iron). $BaAl_3(OH)_7P_2O_7$(?). Belongs to the hamlinite group. From diamond-bearing sands of Minas Geraes, Brazil.

Georgiadesite. **Ap. II, 45. DT 702. Ab. MM 15, 421 (No. 72). CA 2, 385; 2, 1946.**
Orthorhombic. Small hexagonal crystals. White, brownish yellow. H 3.5. G 7.1. A chloro-arsenate of lead. $Pb_3(AsO_4)_2.3PbCl_2$. Occurs on lead slags. Laurium, Greece.

Geraesite. **Ab. MM 18, 380 (No. 87).**
Pebbles ("favas"). "A hydrous barium, aluminum phosphate, more acidic than georceixite." Probably an impure form of georceixite.

Germanite. **DT 430. Ab. AM 8, 115 (June 1923). MA 2, 12; 4, 252 and 344. Ab. MM 20, 454 (No. 110). CA 16, 3608.**
Isometric. Usually massive. Dark reddish gray. H 3–4. G 4.46–4.59. A sulfarsenite of copper, iron, and germanium. $3Cu_2S.12(Cu,Fe)S.As_2S_3.2GeS_2$. Tsumeb, South West Africa.

Gersbyite. **Ap. I, 28. Ab. MM 11, 327 (No. 53).**
Blue grains, resembling lazulite. Dicksberg, Sweden.

Gibbsitogelite. **Ab. MM 17, 351 (No. 82).**
The colloidal form of gibbsite. An aluminum hydroxide. $Al_2O_3.3H_2O$.

Gibsonite. **MM 23, 111 (No. 137).**
Fibrous, pink thomsonite from Renfrewshire and Dumbartonshire, Scotland.

Gillespite. DT 584. Ab. AM 7, 147 (Aug. 1922). AM 14, 319 (Sept. 1929). MA 1, 375; 4, 237. CA 16, 1058.

Tetragonal. Red. H 4. G 3.33. Silicate of iron and barium. $FeO.BaO.4SiO_2$. Dry Delta, Alaska; Mariposa County, California.

Gilpinite. DT 770. AM 2, 75 (June 1917); 11, 1–5 (Jan. 1926). MA 1, 22; 3, 115. Ab. MM 18, 380 (No. 87). CA 11, 2181.

Triclinic. Druses of minute lath-shaped crystals. Greenish yellow to canary-yellow. H about 2. G 3.32. A hydrous sulfate and uranate of copper, iron, and sodium. $(Cu,Fe,Na_2)O.UO_3.SO_3.4H_2O$. Identical with johannite. Gilpin County, Colorado.

Gilsonite. Ap. I, 29. DT 778.

Same as uintahite, DS p. 1020.

Ginorite. Ab. AM 20, 403 (May 1935). MA 5, 484. Ab. MM 23, 629 (No. 146). CA 29, 4702.

Monoclinic. Minute lozenge-shaped plates aggregated into masses. White. H 3.5. G 2.09. A hydrous calcium borate. $Ca_2B_{14}O_{28}.8H_2O$. (?). Tuscany, Italy.

Giorgiosite. Ap. II, 45. DT 531. Ab. MM 14, 398 (No. 67).

A powder consisting of minute spherules. White. A basic magnesium carbonate, closely related to hydromagnesite. Santorin Island.

Girnarite. Ab. AM 18, 512 (Nov. 1933). MA 5, 391. Ab. MM 23, 630 (No. 146). CA 27, 3167.

Monoclinic. Brown. G 3.42. A silicate of iron, aluminum, calcium, magnesium, and sodium. A new member of the hastingsite group. Mount Girnar, India.

Glacialite. Ab. MM 16, 361 (No. 77).

"A trade-name for a white clay from Enid, Oklahoma, put on the market as a fuller's earth."

Gladite. DT 445. Ab. AM 10, 157 (June 1925). MA 2, 340. Ab. MM 20, 454 (No. 110). CA 18, 2860.

Prismatic crystals. Lead-gray. H 2–3. G 6.96. A sulfobismuthite of lead and copper. $2PbS.Cu_2S.5Bi_2S_3$. Gladhammar, Sweden.

Glaucamphiboles. **Ab. MM 12, 383 (No. 58). MA 2, 69.**
(*a*) A group name to include the alkali-amphiboles, glaucophane, gastaldite, and crossite, which are of dynamo-metamorphic origin, as distinct from the arfvedsonite amphiboles, arfvedsonite, riebeckite, and hastingsite, which occur only as original constituents in igneous rocks. (*b*) Wherry uses the name for "blue pleochroic amphiboles . . . in connection with Triassic intrusions of diabase."

Glaucocerinite. **Ab. AM 17, 495 (Oct. 1932). MA 5, 49. Ab. MM 23, 630 (No. 146). CA 26, 4561.**
A fibrous-botryoidal coating on adamite. Sky-blue. H 1. G 2.75. An ultrabasic hydrous sulfate of zinc, aluminum, and copper. $Zn_{13}Al_8Cu_7(SO_4)_2O_{30}.34H_2O$. Laurium, Greece. Near zincaluminite, DS No. 805.

Glaucochroite. **Ap. I, 29; III, 33. DT 599. Ab. MM 12, 316 (No. 57); 12, 383 (No. 58).**
Orthorhombic. In embedded, prismatic crystals. Delicate bluish green, violet, pale pink. H about 6. G 3.407. A silicate of calcium and manganese. $CaMnSiO_4$. Franklin, New Jersey.

Glaucodotite. **AM 8, 186 (Oct. 1923). Ab. MM 19, 341 (No. 98).**
Same as glaucodot.

Glendonite. **Ap. II, 46. Ab. MM 14, 399 (No. 67). MA 6, 117.**
A pseudomorph of ferruginous calcite after glauberite, similar to thinolite and pseudogaylussite. Glendon and elsewhere in New South Wales.

Goethite. **AM 9, 61 (Mar. 1924) and 21, 189 (Mar. 1936).**
Preferred spelling for göthite, DS No. 257.

Gokaite. **Ab. MM 24, 610 (No. 158). MM 25, 25 (No. 160).**
A clinohypersthene with small optic axial angle. Goka, Oki Islands, Japan.

Goldfieldite. **Ap. III, 34. DT 455. Ab. MM 16, 361 (No. 77). CA 3, 2665.**
Massive. Crusts. Dark lead-gray. H 3–3.5. A copper sulfantimonite in which part of the antimony is replaced by bismuth (and arsenic) and part of the sulfur by tellurium (17%). $5CuS.(Sb,Bi,As)_2(S,Te)_3$. Goldfield, Nevada.

Goldschmidtine. **Ab. AM 22, No. 12, part 2, p. 11 (Dec. 1937). Ab. AM 23, 176 (Mar. 1938). MA 7, 15.**

Orthorhombic. Pseudohexagonal; stout prismatic. Tin-white to lead-gray. H 2.5. G 6.83. An antimonide of silver. Ag_2Sb. Andreasberg, Harz, Germany. Not to be confused with goldschmidtite.

Goldschmidtite. **Ap. I, 30; II, 46; III, 34. Ab. MM 12, 383 (No. 58). MM 14, 121 (No. 64). CA, 6, 1420.**

A telluride of gold and silver. Cripple Creek, Colorado. Shown to be identical with sylvanite. Not to be confused with goldschmidtine.

Gonnardite. **Ap. I, 30. DT 655. Ab. MM 11, 327 (No. 53). MM 23, 115–119 (No. 137). CA 26, 4774.**

Orthorhombic. Finely fibrous, radiating spherules. White. H 4.5–5. G 2.3. A hydrous silicate of calcium, sodium, and aluminum. $Ca_2Na_4Al_8Si_{12}O_{40}.14H_2O$. Probably identical with metathomsonite. Puy-de-Dôme, France.

Gonsogolite. **Ab. MM 12, 383 (No. 58).**

Probably the same as pectolite. Predazzo, Tyrol.

Goongarrite. **DT 455. Ab. AM 10, 39 (Feb. 1925). MA 2, 336. Ab. MM 20, 454 (No. 110). CA 19, 1550.**

Probably monoclinic. Fibrous to platy masses. H 3. G 7.29. Sulfobismuthite of lead. $4PbS.Bi_2S_3$. Near Lake Goongarrie, Western Australia.

Gorceixite. **Ap. III, 34. Ab. MM 14, 399 (No. 67). CA 1, 32.**

See georceixite.

Gordonite. **DT 730. AM 15, 331 (Aug. 1930). MA 4, 344. Ab. MM 22, 620 (No. 134). CA 25, 1769.**

Monoclinic. Glassy, lath-shaped crystals, forming crusts. Colorless. H 3.5. G 2.28. A hydrous phosphate of magnesium and aluminum. $MgO.Al_2O_3.P_2O_5.9H_2O$. Near Fairfield, Utah.

Gosseletite. **DT 600. Ab. AM 13, 593 (Dec. 1928). MA 3, 11. Ab. MM 21, 565 (No. 122). CA 23, 1081.**

Orthorhombic. Green. A manganese silicate. Stavelot, Belgium. Ab. AM 22, 72 (Jan. 1937). Probably identical with viridine.

Goureite. **Ab. MM 24, 611 (No. 158). MA 6, 124. CA 32, 890.**

Uniaxial. Skeletal crystals. Pale yellow. In microgranite. Gouré, French West Africa.

Gouverneurite. **Ab. AM 11, 52–54 (Mar. 1926). MA 4, 152. Ab. MM 21, 565 (No. 122).**

Species name suggested for the brown, magnesia tourmaline from Gouverneur, New York.

Graebite. **Ab. AM 19, 491 (Oct. 1934). MA 5, 391. Ab. MM 23, 630 (No. 146).**

Small prisms. Red. A mixture of polyhydroxyanthraquinones. About $C_{18}H_{14}O_8$ or $C_{17}H_{14}O_8$. Oelsnitz, Saxony, Germany.

Graftonite. **Ap. II, 47. DT 703. Ab. MM 12, 384 (No. 58).**

Monoclinic. Rough composite crystals, interlaminated with triphylite. Salmon-pink, usually dark from alteration. H 5. G 3.672–3.796. A phosphate of iron, manganese, and calcium. $(Fe,Mn,Ca)_3P_2O_8$. Near Grafton and North Groton, New Hampshire; near Greenwood, Maine.

Grandidierite. **Ap. II, 47. DT 639. Ab. MM 13, 368 (No. 62). CA 18, 649.**

Orthorhombic. Large, elongated crystals. Bluish green. H 7.5. G 2.99. A basic silicate of aluminum, ferric, and ferrous iron, magnesium, etc. $7SiO_2.11(Al,Fe)_2O_3.7(Mg,Fe,Ca)O.2(Na,K,H)_2O$. Resembles sapphirine. Andrahomana, Madagascar.

Grandite. **Ap. III, 33. Ab. MM 15, 421 (No. 72). CA 4, 735.**

A contraction of grossularite and andradite for garnets of intermediate composition.

Gränzerite. **AM 19, 287 (June 1934). MA 5, 296.**

Same as sanidine. Bohemia.

Graphitite. **Ap. I, 31. Ab. MM 11, 327 (No. 53).**

A supposed new form of amorphous carbon, is shown to be merely graphite.

Greenalite. **Ap. II, 47. DT 680. AM 20, 405–425 (June 1935). Ab. MM 14, 399 (No. 67).**

Isotropic; probably amorphous. Rounded granules. Green. G 2.85–3.15. A hydrous silicate of ferrous iron. $2H_2O.3FeO.4SiO_2$. Closely resembles glauconite, from which it differs in containing no potassium. Mesabi district, Minnesota.

Green John. MA 1, 68. Ab. MM 19, 342 (No. 98).
Green fluorite. Named from analogy to "Blue John."

Greinerite. Ab. MM 24, 611 (No. 158). CA 32, 885.
A brown-spar or mangandolomite. A carbonate of magnesium, manganese, and calcium. $(Mg,Mn)Ca(CO_3)_2$. Greiner, Zillerthal, Tyrol.

Griffithite. DT 673. Ab. AM 2, 54 (Apr. 1917). MA 1, 206. Ab. MM 18, 380 (No. 87).
Monoclinic (?). A filling in amygdaloidal cavities. Dark green. H about 1. G 2.309. A hydrous silicate of iron, calcium, magnesium, and aluminum. $4(Mg,Fe,Ca)O.(Al,Fe)_2O_3.5SiO_2.7H_2O$. A member of the chlorite group. Griffith Park, Los Angeles, California.

Grodnolite. DT 719. Ab. AM 10, 134 (May 1925). MA 2, 343. Ab. MM 20, 454 (No. 110). CA 18, 2861.
Nodules. A hydrous phosphate, carbonate, etc., of calcium. Identical with collophanite. Grodno, Poland.

Grossouvreite. Ab. MM 17, 351 (No. 82).
A pulverulent opal, formerly called vierzonite. Vierzon, France.

Grothine. Ap. III, 34. DT 627. Ab. MM 17, 351 (No. 82). CA 7, 3730.
Orthorhombic. Small, tabular crystals. Colorless. H 5.5. G 3.09. A silicate of calcium and aluminum with a little iron. Campania, Italy.

Grünlingite. Ap. I, 31. DT 413. Ab. MM 12, 45 (No. 54); 12, 384 (No. 58).
Probably rhombohedral. Massive, with one distinct cleavage; resembling tetradymite. Gray, tarnishing black. G 7.321. A sulfide and telluride of bismuth, Bi_4S_3Te. Previously usually regarded as tetradymite or joseïte. Carrock Fells, Cumberland, England.

Guadarramite. Ap. III, 34. Ab. MM 16, 361 (No. 77). CA 1, 1961.
A radioactive variety of ilmenite from Guadarrama, Castille, Spain.

Guanabacoite. Ap. I, 31. Ab. MM 11, 327 (No. 53).
Same as guanabaquite.

Guanabaquite. Ap. I, 31 and 58. Ab. MM 11, 327 (No. 53).
A name given to replace cubaite for the "cubical quartz" of Guanabacoa, Cuba. Also includes the "cubical chalcedony" (possibly pseudomorphous after fluorite) from Tresztya, Transylvania. See cubosilicite.

Gudmundite. DT 440. Ab. AM 13, 592 (Dec. 1928). MA 4, 12. Ab. MM 22, 620 (No. 134). CA 22, 4411.
Orthorhombic. Elongated crystals. Silver-white to steel-gray. H about 6. Sulfantimonide of iron. FeSbS. Isomorphous with arsenopyrite. Gudmundstrop, Sweden.

Guildite. DT 765. AM 13, 217 (June 1928). Ab. MM 21, 565 (No. 122).
Monoclinic. Habit, cubic. Dark chestnut-brown. H about 2.5. G 2.725. A hydrous sulfate of copper, iron, and aluminum. $3(Cu,Fe)O.2(Fe,Al)_2O_3.7SO_3.17H_2O$. Jerome, Arizona.

Gumucionite. Ab. AM 18, 359 (Aug. 1933). MA 5, 199. Ab. MM 23, 630 (No. 146). CA 27, 5279.
Botryoidal, radially fibrous. Raspberry-red to brownish. H over 4. G 3.76. An arsenic-bearing variety of sphalerite (colored by realgar). Llallagua, Bolivia.

Gunnardite. Ap. I, 31. Ab. MM 12, 384 (No. 58).
A mineral probably identical with pentlandite, occurring embedded in pyrrhotite. Tin-white, tinged with yellow, tarnishing yellowish brown. G 4.4. A sulfide of nickel and iron. $3FeS_2.2NiS$. Rud, Sweden.

H

Hackmanite. Ap. II, 48. DT 589. Ab. MM 13, 368 (No. 62).
Isometric. In dodecahedrons. Violet, fading to gray. H 5. G 3.32–3.33. A sodalite containing about 6% of the molecule $3NaAlSiO_4.Na_2S$. Kola Peninsula, Russian Lapland; Bancroft, Ontario, Canada.

Haematogelite. Ap. III, 35. Ab. MM 16, 361 (No. 77); 17, 351 (No. 82).
Same as hematogelite.

Haematophanite. CA 22, 4411.
Same as hämatophanite.

Hagatalite. DT 610. Ab. AM 11, 137 (May 1926). MA 3, 9. Ab. MM 21, 565 (No. 122). CA 20, 563.

Tetragonal. Crystals like zircon. Gray. H 7.5. G 4.4. A silicate of zirconium and rare earths. A variety of zircon. Hagata, Japan.

Hainite. Ap. I, 31. Ab. MM 11, 327 (No. 53).

Triclinic. Slender needles and plates. Yellow, colorless. H 5. G 3.184. Probably a titano-silicate of sodium, calcium, cerium, zirconium, etc. Related to rosenbuschite. Near Mildenau, Bohemia.

Hallerite. Ap. III, 35. DT 662. Ab. MM 15, 421 (No. 72). CA 2, 2769.

A lithium-bearing variety of paragonite, resembling muscovite. Mesvres, Autun, France.

Halotri-alunogen. Ab. MM 24, 611 (No. 158).

A mixture of halotrichite and alunogen.

Hämatophanite. DT 468. Ab. AM 13, 593 (Dec. 1928). MA 4, 13. Ab. MM 22, 621 (No. 134).

Tetragonal. Lamellar aggregates of thin plates. Dark reddish brown. H 2–3. G 7.70. An oxychloride of lead and iron. $Pb(Cl,OH)_2.4PbO.2Fe_2O_3$. Jakobsberg, Sweden.

Hamelite. Ab. MM 11, 327 (No. 53).

A hydrous silicate of aluminum, iron, and magnesium. New Brunswick.

Hammarite. DT 448. Ab. AM 10, 157 (June 1925). MA 2, 340. Ab. MM 20, 455 (No. 110). CA 18, 2860.

Monoclinic (?). Short needles. Reddish steel-gray. H 3–4. G high. A sulfobismuthite of lead and copper. $2PbS.Cu_2S.2Bi_2S_3$(?). Gladhammar, Sweden.

Hampdenite. Ap. II, 49. Ab. MM 15, 422 (No. 72).

A variety of serpentine from Chester, Hampden County, Massachusetts, which forms the matrix of the pseudomorphs of serpentine after olivine known as hampshirite.

Hancockite. Ap. I, 32; II, 49. DT 624. Ab. MM 12, 316 (No. 57); 12, 384 (No. 58).

Monoclinic. Very small, lath-shaped crystals. Brownish red. H 6–7. G 4.03. A basic silicate of lead, calcium, stron-

tium, aluminum, iron, and manganese. $(Ca,Pb,Sr,Mn)_2(Al,Fe,Mn)_3(SiO_4)_3(OH)$. Franklin, New Jersey.

Harbortite. **Ab. AM 18, 222 (May 1933). MA 5, 201. Ab. MM 23, 630 (No. 146). CA 31, 6144.**

Octahedrons; spherulites. White, yellowish, brownish. H 5–5.5. G 2.781–2.798. A hydrous phosphate of aluminum. $6Al_2O_3.4P_2O_5.17H_2O$. Maranhao, Brazil.

Hardystonite. **Ap. I, 32; II, 50. DT 607. Ab. MM 12, 315 (No. 57); 12, 384 (No. 58).**

Tetragonal. Granular masses. White. H 3–4. G 3.396. A silicate of calcium and zinc. $Ca_2ZnSi_2O_7$. Franklin, New Jersey.

Harttite. **Ap. II, 50; III, 36. DT 712. Ab. MM 14, 399 (No. 67). CA 1, 32.**

Hexagonal. Microscopic crystals; usually in rolled pebbles ("favas"), with microcrystalline structure. Flesh-red. H 4.5–5. G 3.21. A hydrous phosphate and sulfate of aluminum and strontium. $(Sr,Ca)O.2Al_2O_3.P_2O_5.SO_3.5H_2O$. From diamond-bearing sands of Bahia, Brazil.

Hastingsite. **Ap. I, 33. DT 578. Ab. MM 11, 244 (No. 52); 11, 327 (No. 53).**

A group of monoclinic amphiboles, low in silica, with calcium, ferrous iron, magnesium, aluminum, and smaller amounts of alkalies. $Ca_2Na(Fe,Mg)_4(Al,Fe)(OH)_2(Al,Si)_8O_{22}$. The original mineral was from Dungannon, Hastings County, Ontario, Canada.

Hatchite. **Ap. III, 36. Ab. MM 16, 361 (No. 77). MM 16, 287–289 (No. 76). CA 7, 1854.**

Triclinic. Minute crystals. Lead-gray. Supposed to be a sulfarsenite of lead. Binnenthal, Switzerland.

Hauchecornite. **Ap. I, 33. DT 429. Ab. MM 10, 339 (No. 48); 11, 328 (No. 53).**

Originally described as: Tetragonal. Tabular crystals. Light bronze-yellow. H 5. G 6.4. A sulfide, bismuthide, antimonide, and arsenide of nickel (and cobalt). $(Ni,Co)_7(S,Bi,Sb,As)_8$. Shown to be a mixture of two unknown constituents. Hamm, Rhenish Prussia, Germany.

Hautefeuillite. **Ap. I, 33. DT 721. Ab. MM 11, 162 (No. 51); 11, 328 (No. 53).**

Monoclinic. Lamellar, radiated aggregates of minute prisms. Colorless. H 2.5. G 2.435. A hydrous phosphate of magnesium and calcium. $(Mg,Ca)_3(PO_4)_2.8H_2O$. Ödegaarden, Bamle, Norway.

Hauynite. **AM 9, 62 (Mar. 1924) and 21, 189 (Mar. 1936).**

Preferred spelling for haüynite, DS No. 363.

Hawaiite. **Ab. MM 15, 422 (No. 72). CA 1, 283.**

A gem variety of olivine from the lavas of the Hawaiian Islands. It contains but little iron and is pale green.

Headdenite. **Ab. AM 22, 876 (July 1937). MA 6, 486.**

"The phosphate near triphylite described by Headden (DS p. 758) is provisionally named headdenite." Nodules. Dark green. H 5. G 3.612. A phosphate of sodium, potassium, iron, manganese, and calcium. Pennington County, South Dakota.

Heazlewoodite. **Ap. I, 33. Ab. MM 11, 328 (No. 53).**

A sulfide of nickel and iron related to pentlandite. Light bronze-yellow. H 5. G 4.61. Up to 38% Ni, but not analyzed. Heazlewood, Tasmania.

Hedenbergite-hypersthene. **CA 1, 2072.**

A pyroxene intermediate between hedenbergite and hypersthene, relatively rich in iron.

Heliodor. **DT 580. Ab. AM 8, 134 (July 1923). AM 9, 34 (Feb. 1924). Ab. MM 16, 362 (No. 77). CA 8, 3544.**

A ferriferous beryl. $Be_3(Al,Fe)_2(SiO_3)_3$. A golden beryl of gem quality. South West Africa.

Hellandite. **Ap. II, 50. DT 634. Ab. MM 13, 368 (No. 62). CA 1, 400.**

Monoclinic. Prismatic crystals. Brown. H 5.5. G 3.70. A hydrous silicate chiefly of the cerium metals, aluminum, manganese, and calcium. Possibly $2CaO.3(Al,Mn,Ce)_2O_3.4SiO_2.3H_2O$. Near Kragerö, Norway.

Hematitogelite. **CA 8, 1074.**

Same as hematogelite.

Hematogelite. Ap. III, 37. DT 507. Ab. MM 18, 380 (No. 87). CA 8, 1074.

A colloidal form of iron sesquioxide, usually present in bauxite, as a coloring matter.

Hemiopal. Ab. MM 11, 328 (No. 53).

Same as semiopal.

Hengleinite. DT 435. AM 12, 379 (Oct. 1927). Ab. MM 21, 565 (No. 122).

Isometric. Minute pyritohedral crystals. Steel-gray. H 5. G 4.716. Iron sulfide with about 20% cobalt and nickel. (Co, Ni,Fe)S_2. Probably a mixture of siegenite and pyrite. Formerly called cobaltnickelpyrite. Müsen, Westphalia, Germany.

Heptaphyllite. AM 10, 53 (Mar. 1925). Ab. MM 20, 455 (No. 110). CA 19, 2007.

Winchell's name for a group of micas from muscovite to lepidolite. They correspond roughly with the light-colored micas.

Herzenbergite. Ab. AM 20, 541 (July 1935); 21, 677 (Oct. 1936). Ab. MM 24, 611 (No. 158). MA 6, 261 and 262. CA 30, 2529.

Name proposed to replace the preoccupied name kolbeckine. Orthorhombic. H about 2. Resembles teallite. "From minerographic and X-ray studies, identical with SnS, hence not Sn_2S_3." Bolivia; South West Africa.

Heterobrochantite. DT 756. Ab. AM 12, 325 (Aug. 1927). MA 3, 270. Ab. MM 21, 565 (No. 122). CA 21, 3031.

Orthorhombic. Microcrystalline mass. Green. A basic copper sulfate. $CuSO_4.2Cu(OH)_2$. A variety of antlerite. Chile.

Heterogenite. AM 7, 195 (Nov. 1922).

Name suggested for "all cobalto-cobaltic hydroxides of varying purity." Wherry.

Heterophyllite. Ab. MM 24, 611 (No. 158). MA 6, 441. CA 32, 888.

A variety of biotite intermediate between siderophyllite and annite. A hydrous silicate of potassium, iron, and aluminum. $H_8K_4Fe_4Al_6Si_8O_{35}$. Mangualde, Portugal.

Hewettite. **Ap. III, 38. DT 725. Ab. MM 17, 351 (No. 82). CA 8, 2992.**

Orthorhombic. Silky aggregates of minute needles. Mahogany-red. G 2.5–2.6. A hydrous vanadate of calcium. $CaO.3V_2O_5.9H_2O$. Minasragra, Peru; Montrose County, Colorado.

Hexahydrite. **Ap. III, 38. DT 763. Ab. MM 16, 362 (No. 77). MA 3, 542; 4, 378. CA 6, 971.**

Monoclinic. Thick tabular crystals; also columnar and fibrous. White or greenish white. G 1.757. Hydrous sulfate of magnesium, differing from epsomite in containing six molecules of water instead of seven. $MgSO_4.6H_2O$. Oroville, Washington; Lillooet district, British Columbia; Crimea, Russia.

Hibbenite. **DT 719. Ab. AM 2, 11 (Jan. 1917); 8, 15 (Jan. 1923). Ab. MM 18, 380 (No. 87). MA 1, 5. CA 10, 2677.**

Orthorhombic. Tabular crystals. Pale yellow. H about 3.75. G 3.213. A basic hydrous phosphate of zinc. $2Zn_3(PO_4)_2.Zn(OH)_2.6\frac{1}{2}H_2O$. Probably identical with alpha-hopeite. Salmo, British Columbia.

Hibinite.

See khibinite.

Hibschite. **Ap. II, 52; III, 38. DT 634. Ab. MM 14, 400 (No. 67). CA 1, 31.**

Isometric. Minute octahedral crystals and groups. Colorless or pale yellow. H 6. G 3.05. A basic silicate of calcium and aluminum. $H_4CaAl_2Si_2O_{10}$. Dimorphous with lawsonite. Aussig, Bohemia; Aubenas, France.

Higginsite. **DT 714. AM 5, 155 (Sept. 1920). MA 1, 122. Ab. MM 19, 342 (No. 98). CA 14, 3389.**

Orthorhombic. Prismatic crystals. Green. H about 4.5. G 4.33. A basic arsenate of copper and calcium. $CuCa(OH)(AsO_4)$. Higgins mine, Bisbee, Arizona.

Hilgardite. **AM 22, 1052–1057 (Oct. 1937). MA 7, 14.**

Monoclinic. Triangular plates. Colorless. H 5. G 2.71. A hydrous chloro-borate of calcium. $Ca_8(B_6O_{11})_3Cl_4.4H_2O$. From a brine well in the Choctaw Salt Dome, Louisiana.

Hilgenstockite. **Ab. MM 19, 342 (No. 98). MA 5, 318.**

Orthorhombic. Plates. Yellow. A phosphate of calcium. $4CaO.P_2O_5$. Found in slag.

Hillebrandite. **Ap. II, 52. DT 640. Ab. MM 15, 422 (No. 72). CA 3, 524.**

Orthorhombic. Radiating-fibrous. White. H about 5.5. G 2.692. A hydrous silicate of calcium. $CaO.Ca(OH)_2.SiO_2$. Durango, Mexico.

Hinsdalite. **Ap. III, 38. DT 738. Ab. MM 16, 362 (No. 77). CA 5, 3213.**

Pseudorhombohedral. Coarse, dull crystals and granular. Dark gray or greenish. H 4.5. G 4.65. A hydrous sulfate and phosphate of lead, aluminum, and strontium. $2(Pb,Sr)O.3Al_2O_3.2SO_3.P_2O_5.6H_2O$. Hinsdale County, Colorado.

Histrixite. **Ap. II, 52. DT 445. Ab. MM 13, 368 (No. 62). CA 8, 40.**

Orthorhombic. Radiating groups of prismatic crystals; also foliated massive. Steel-gray. H 2. A sulfobismuthite and sulfantimonite of copper and iron. $5CuFeS_2.7Bi_2S_3.2Sb_2S_3$. Also called porcupine-ore. Ringville, Tasmania.

Hjelmite. **AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).**

Preferred spelling for hielmite, DS No. 531.

Hlopinite.

See chlopinite.

Hodgkinsonite. **Ap. III, 38. DT 685. Ab. MM 17, 351 (No. 82). CA 8, 480.**

Monoclinic. Acute, pyramidal, or prismatic crystals. Bright pink to reddish brown. H 4.5–5. G 3.91. A hydrous silicate of zinc and manganese. $3(Zn,Mn)O.SiO_2.H_2O$. Franklin, New Jersey.

Hoegbomite. **CA 13, 1690.**

Same as högbomite.

Hoegtveitite. **Ab. AM 12, 97 (Mar. 1927).**

Norway. Same as alvite.

Hoeferite. **Ap. I, 35. DT 685. Ab. MM 11, 161 (No. 51); 11, 328 (No. 53).**

Amorphous. Earthy, granular, or scaly. Green. H 1–3. G 2.34. A hydrous silicate of iron. $2Fe_2O_3.4SiO_2.7H_2O$. Probably identical with nontronite. Kritz, near Rakonitz, Bohemia.

Hoelite. DT 777. Ab. AM 11, 138 (May 1926). MA 2, 10. Ab. MM 20, 455 (No. 110). CA 17, 2546.

Needles. G 1.43. An oxygenated hydrocarbon. $C_{14}H_8O_2$. Same as anthraquinone. Found as a sublimate from burning coal. Spitzbergen.

Högbomite. DT 487. Ab. AM 4, 76 (June 1919). AM 10, 1–9 (Jan. 1925). MA 1, 252; 2, 567. Ab. MM 18, 381 (No. 87). CA 11, 3204.

Rhombohedral. Black. H 6. G about 3.81. An oxide of aluminum, magnesium, and ferric iron, with some titanium replacing iron. $RO.2R_2O_3$ with Al_2O_3, Fe_2O_3, MgO, TiO_2. Swedish Lapland; Whittles, Virginia.

Högtveitite. Ab. AM 12, 97 (Mar. 1927). MA 2, 26; 5, 432. Ab. MM 20, 455 (No. 110).

A radioactive mineral, incorrectly referred to alvite. It is much altered, but may be related to thalenite or hellandite, or possibly it is a new species with general formula $R_2Si_2O_7$. Högtveit, Evje, Norway.

Hokutolite. Ap. III, 39. DT 749. Ab. MM 16, 362 (No. 77).

Crystalline crusts. Light buff to grayish. Radioactive. A mixture, in varying proportions, of lead and barium sulfates, but regarded as a lead-bearing barite. Also called anglesobarite. Hokuto hot springs, Formosa; near Akita, Japan.

Holdenite. DT 728. AM 12, 144–148 (Apr. 1927). MA 3, 365. Ab. MM 20, 455 (No. 110); 21, 565 (No. 122). CA 22, 2905.

Orthorhombic. Tabular crystals. Red. H 4. G 4.07. A basic hydrous arsenate of manganese and zinc. $8MnO.4ZnO.As_2O_5.5H_2O$. Franklin, New Jersey.

Hollandite. Ap. II, 52; III, 39. DT 495. Ab. MM 14, 400 (No. 67). MA 1, 45. CA 3, 414.

Tetragonal. Prismatic, Silvery gray to black. H 4–6. G 4.7–5.0. A manganate of manganese, barium, and ferric iron. $m(Ba,Mn)_2MnO_5 + nFe_4(MnO_5)_3$. Considered to be the crystalline form of psilomelane. Balaghat and elsewhere in Central India.

Holmquistite. DT 577. AM 15, 292 (Aug. 1930). Ab. MM 17, 352 (No. 82). CA 8, 1556.

Monoclinic. Prismatic. Bluish black. G 3.111. A silicate of lithium, magnesium, iron, and aluminum with fluorine

and hydroxyl. $Li_2(Mg,Fe)_3Al_2Si_8O_{22}(OH,F)_2$. A lithium-bearing variety of glaucophane (or amphibole). Utö, Sweden; Hiddenite, North Carolina.

Hörnbergite. **Ab. MM 13, 368 (No. 62).**
An arsenate of uranium.

Howdenite. **Ap. II, 53. Ab. MM 15, 422 (No. 72).**
A local name for the large crystals of chiastolite from Mt. Howden, South Australia.

Hsihutsunite. **Ab. MM 24, 611 (No. 158). MA 6, 442. CA 32, 885.**
A variety of rhodonite containing 6.24% MgO. Hsihutsun, Chih-li province, China.

Huebnerite. **AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).**
Preferred spelling for hübnerite, DS No. 813.

Huelvite. **Ab. MM 13, 369 (No. 62). MM 14, 122 (No. 64).**
A mixture of rhodochrosite with rhodonite (or tephroite). Huelva, Spain.

Hügelite. **Ap. III, 39. DT 727. Ab. MM 17, 353 (No. 82). CA 7, 751; 8, 310.**
Monoclinic. Minute needles. Orange-yellow to yellow-brown. G 5. A hydrous lead and zinc vanadate. Reichenbach, Baden, Germany.

Hulsite. **Ap. II, 53; III, 39. DT 743. Ab. MM 15, 422 (No. 72). CA 2, 1402; 4, 2083; 5, 654.**
Orthorhombic (?). Small crystals, or tabular masses. Black. H 3. G 4.28. A hydrous borate of ferrous and ferric iron, magnesium, and tin. $12(Fe,Mg)O.2Fe_2O_3.SnO_2.3B_2O_3.2H_2O$. Brooks Mt., Seward Peninsula, Alaska.

Humite. **Ab. MM 24, 612 (No. 158).**
Coals derived from humic materials. Not to be confused with humite, DS No. 414.

Hussakite. **Ap. II, 53. DT 700. MM 13, 307 (No. 61). Ab. MM 13, 369 (No. 62). MM 14, 122 (No. 64). CA 1, 2677.**
Originally described as a sulfato-phosphate of rare earths. Later proved to contain but small amounts of SO_3 and to be xenotime. Dattas, near Diamantina, Brazil.

Hutchinsonite. **Ap. II, 53. DT 446. MM 14, 72 (No. 64); 14, 283–293 (No. 67). Ab. MM 14, 400 (No. 67). CA 1, 2785.**

Orthorhombic. Small, complex, flattened prisms. Scarlet vermilion to deep cherry-red. H 1.5–2. G 4.6. A sulfarsenite of lead, silver, and thallium. $PbS.(Tl,Ag)_2S.2As_2S_3$. Binnenthal, Switzerland.

Hyaloallophane. **Ap. II, 54. Ab. MM 12, 384 (No. 58).**

Allophane containing an excess of silica, supposed to be due to the presence of admixed hyalite. Sky-blue to white. Rosas Sulcis, Sardinia.

Hyblite. **DT 612. AM 12, 368–372 (Oct. 1927). MA 3, 367. Ab. MM 21, 565 (No. 122).**

Isotropic. A basic hydrous sulfo-silicate of thorium and uranium with some iron, lead, etc. An alteration product of thorite. See alpha-hyblite and beta-hyblite. Hybla, Ontario, Canada.

Hydro-amphibole. **Ab. MM 24, 612 (No. 158). MA 6, 443. CA 30, 8081.**

Colorless, acicular, resembling tremolite. An amphibole containing double the amount of water (5.78%) required by Warren's formula. $H_4R''_7(Si,Al)_8O_{24}$. Near Salcombe, Devon, England.

Hydrobismutite. **Ab. MM 24, 612 (No. 158).**

A hydrous bismuth carbonate, $Bi_2O_3.CO_2.2–3H_2O$, containing more water than bismutite. Transbaikal, Siberia.

Hydrobraunite. **MM 24, 612 (No. 158).**

A member of the psilomelane—wad group.

Hydrocalcite. **Ap. I, 36. Ab. MM 11, 328 (No. 53).**

A soft, white, pulpy substance, which, when dried, has the composition $CaCO_3.2H_2O$. This "bergmilch," containing needle-like crystals, is regarded as a new form of calcium carbonate. Wolmsdorf, Silesia.

Hydrocalumite. **Ab. AM 20, 316 (Apr. 1935). MM 23, 607–615 (No. 146). MA 6, 349. CA 28, 7205.**

Monoclinic. Pseudohexagonal. Aggregates of cleavages; infillings in larnite rock. Colorless to light green. H 3. G 2.15. A hydrous calcium aluminate. $4CaO.Al_2O_3.12(or\ 14)H_2O$. Scawt Hill, County Antrim, Ireland.

Hydroclinohumite. DT 630. Ab. AM 5, 136 (July 1920). Ab. MM 19, 342 (No. 98).

Same as titanhydroclinohumite.

Hydro-fluor-herderite. Ap. I, 35; III, 37. Ab. MM 12, 384 (No. 58).

Herderite containing both fluorine and hydroxyl. Ca[Be(OH, F)]PO_4. Stoneham, Auburn, and Greenwood, Maine; etc.

Hydro-glockerite. Ab. AM 7, 214 (Dec. 1922). MA 1, 328. Ab. MM 19, 342 (No. 98).

Ocher-like. A hydrous sulfate of ferric iron. A hydrous variety of glockerite. $2Fe_2O_3.SO_3.8H_2O$. Parys Mt., Anglesey, Wales.

Hydrogöthite. Ap. II, 54. DT 504. Ab. MM 12, 384 (No. 58); 13, 369 (No. 62).

Orthorhombic. Radiating fibrous. Cochineal-red. H 4. G 3.7. A hydroxide of iron. $3Fe_2O_3.4H_2O$. A stage in the alteration of goethite to limonite. Government of Tula, Russia.

Hydrohausmannite. MM 24, 612 (No. 158).

A member of the psilomelane—wad group.

Hydroherderite. Ap. I, 36. Ab. MM 12, 384 (No. 58).

Herderite containing hydroxyl in place of fluorine. Ca[Be(OH)]PO_4. Paris and Hebron, Maine.

Hydrohetaerolite. DT 509. AM 13, 308 (July 1928). MA 6, 261.

Tetragonal. Botryoidal. Black. A hydrous oxide of zinc and manganese. $2ZnO.2Mn_2O_3.H_2O$. Ogdensburg, New Jersey; Leadville, Colorado (wolftonite).

Hydrokaolin. CA 30, 411.

A fibrous form of kaolinite from Saglik, Transcaucasia, Russia.

Hydrolite. Ab. MM 12, 384 (No. 58).

Same as siliceous sinter.

Hydromagnocalcite. Ab. AM 5, 66 (Mar. 1920). CA 13, 1439.

Amorphous. Chalky. White. G 2.412. A hydrous carbonate of calcium and magnesium. $CaCO_3.Mg(OH)_2$. Southern Tatra Mts.

Hydromanganite. MM 24, 612 (No. 158).

A member of the psilomelane—wad group.

Hydromanganosite. MM 24, 61z (No. 105).
A member of the psilomelane—wad group.

Hydromelanothallite. Ap. III, 40. Ab. MM 16, 362 (No. 77). CA 9, 773.
Scales. Green. Formed from melanothallite by hydration in the air. A hydrous oxychloride of copper. $CuCl_2.CuO.2H_2O$. Vesuvius, Italy.

Hydrophlogopite. Ap. II, 81. Ab. MM 12, 385 (No. 58).
A phlogopite containing less alkalies and more loosely combined water than normal phlogopite. Ceylon; etc.

Hydroromeite. Ab. AM 19, 35 (Jan. 1934). MA 5, 294. Ab. MM 23, 631 (No. 146).
Isometric. Yellow to brown. H 5. G 3.66. A hydrous antimonate of calcium. $2–3CaO.2Sb_2O_5.6–8H_2O$. Isomorphous with bindheimite and stibiconite. Higueras, Cordoba, Spain.

Hydrotenorite. MA 7, 10. CA 32, 2055.
Amorphous; banded with chrysocolla. Black. H 3.5. G 4.15. A hydrous cupric oxide. $4CuO.H_2O$. Elizabethville, Katanga, Belgian Congo.

Hydrothomsonite. Ap. III, 40. DT 656. Ab. MM 15, 422 (No. 72).
Small prismatic crystals. White or colorless. G 2. An alteration product of thomsonite or scolecite. A hydrous silicate of aluminum, sodium, and calcium. $(H_2,Na_2,Ca)Al_2Si_2O_8.5H_2O$. Near Batum, Transcaucasia, Russia.

Hydrothorite. DT 620. Ab. AM 13, 570 (Nov. 1928). MA 3, 544. Ab. MM 21, 566 (No. 122). CA 23, 1081.
Isotropic. Pinkish buff. H 1–2. A hydrous silicate of thorium. $ThSiO_4.4H_2O$. An alteration product of mackintoshite. Wodgina, Western Australia.

Hydrotroilite. Ab. MM 16, 362 (No. 77).
Hydrated iron sulphide. $FeS.H_2O$. In black mud of inland seas.

Hydrous calcium carbonate. Ap. II, 54.
Monoclinic or triclinic. Fungus-like coating on marl. Colorless needles or plates. G 2.63. A hydrous calcium carbonate. $CaCO_3.3H_2O$. Same as trihydrocalcite. Near Nova-Alexandria, Poland.

Hydrous iron phosphate. **Ap. II, 54.**
Orthorhombic. Fe_2O_3, 47.71; P_2O_5, 38.87; H_2O, 13.42. Kertsch and Taman peninsulas, Crimea, Russia.

Hydrowollastonite. **AM 5, 16 (Jan. 1920). Ab. MM 18, 381 (No. 87).**
Crestmoreite plus riversideite. Crestmore, California.

Hydroxy-amphibole. **AM 20, 547 (Aug. 1935). MA 6, 612.**
Amphibole with the formula $(OH)_2R''_7(Si_4O_{11})_2$.

Hydroxyapatite. **Ap. III, 40. DT 704. Ab. AM 21, 269 (Apr. 1936). Ab. MM 16, 363 (No. 77). MM 17, 156–162 (No. 80). MA 5, 317–319; 6, 57. CA 26, 5038.**
A hypothetical molecule in the apatite group, later found near Hospenthal, Uri, Switzerland. Hexagonal. Rough crystals. Yellowish to greenish. G 3.076. A hydroxyphosphate of calcium. $3Ca_3(PO_4)_2.Ca(OH)_2$.

Hydroxybraunite. **MM 24, 612 (No. 158).**
A member of the psilomelane—wad group.

Hydroxyfluorapatite. **CA 26, 671.**
The apatite of Christmas, Nauru, and Ocean Islands. $Ca_{10}(OH,F)_2(PO_4)_6$.

Hydroxyl-annite. **MA 6, 612. CA 32, 886.**
Normal annite, but so named to call attention to the difference between it and fluor-annite.

Hydroxyl-biotite. **MA 6, 612. CA 32, 886.**
Normal biotite, but so named to call attention to the difference between it and fluor-biotite.

Hydroxyl-lepidomelane. **MA 6, 612. CA 32, 886.**
Normal lepidomelane, but so named to call attention to the difference between it and fluor-lepidomelane.

Hydroxyl-meroxene. **MA 6, 612. CA 32, 886.**
Normal meroxene, but so named to call attention to the difference between it and fluor-meroxene.

Hydroxyl-phlogopite. **MA 6, 612. CA 32, 886.**
Normal phlogopite, but so named to call attention to the difference between it and fluor-phlogopite.

Hydroxyl-siderophyllite. MA 6, 612. CA 32, 886.

Normal siderophyllite, but so named to call attention to the difference between it and fluor-siderophyllite.

Hydroxymimetite. Ab. MM 21, 566 (No. 122).

"Artificially prepared basic lead arsenate, $Pb_4(PbOH)(AsO_4)_3 \cdot H_2O$, as hexagonal crystals resembling mimetite, but with water of crystallization."

Hyperoranite. MM 24, 612 (No. 158). Journal of Geology 21, 234–254.

An intermediate member of the orthoclase-anorthite (Or-An, "oranite") series. "A perthitic feldspar, the composition of the two kinds taken together would range in composition from potash feldspar from 45% down to 20%, the rest being composed of albite with a maximum of 10%, and the remainder anorthite." Alling.

Hypersthene-hedenbergite. Ab. MM 15, 420 (No. 72). CA 1, 2072.

One of a group of monoclinic pyroxenes intermediate between hypersthene and the calcium-bearing monoclinic pyroxenes.

Hyperthite. MM 24, 612 (No. 158). Journal of Geology 21, 234–254.

"A perthitic feldspar, the composition of the two kinds taken together would range in composition from potash feldspar from 45% down to 20%, the rest being composed of anorthite to a maximum of 10%, and the remainder albite." Alling.

Hypo-oranite. MM 24, 612 (No. 158). Journal of Geology 21, 234–254.

An intermediate member of the orthoclase-anorthite (Or-An, "oranite") series. "A perthitic feldspar, the composition of the two kinds taken together would range in composition from potash feldspar from 70% down to 55%, the rest being composed of albite with a maximum of 10%, and the remainder anorthite." Alling.

Hypoperthite. MM 24, 612 (No. 158). Journal of Geology 21, 234–254.

An intermediate member of the orthoclase-albite (Or-Ab) series. "A perthitic feldspar, the composition of the two kinds taken together would range in composition from potash feldspar from 70% down to 55%, the rest being composed of anorthite to a maximum of 10%, and the remainder albite." Alling.

Hyposiderite. Ab. MM 16, 363 (No. 77).

"A black, shining variety of limonite differing from stilpnosiderite in its lower specific gravity (3.30–3.38) and higher percentage of water (20%)."

I

Ianthinite. DT 510. CA 21, 2242.

Incorrect spelling of Ianthite.

Ianthite. DT 510. Ab. AM 12, 355 (Sept. 1927). AM 19, 309–315 (July 1934). MA 3, 232, 233; 6, 90, etc. CA 21, 2242.

Orthorhombic. Acicular crystals. Violet-black. H 2–3. Believed to be hydrous uranium dioxide. Perhaps $2UO_2.7H_2O$. Katanga, Belgian Congo; Wölsendorf, Bavaria, Germany.

Iddingsite. Ap. I, 36; II, 54. DT 680. Ab. AM 10, 448 (Dec. 1925). Ab. MM 10, 264 (No. 47); 11, 328 (No. 53). MA 3, 120.

Orthorhombic. Foliated. Reddish brown. H 2.5. G 2.54–2.80. A hydrous silicate of magnesium and iron. $MgO.Fe_2O_3.3SiO_2.4H_2O$. An alteration product of olivine. See also ferro-antigorite. Carmelo Bay, California; Colorado; etc.

Idrizite. Ap. I, 36. Ab. MM 11, 328 (No. 53).

Compact to crystalline. Yellowish gray. H 3. G 1.829. A hydrous sulfate of magnesium, iron, and aluminum. $(Mg,Fe)(Fe,Al)_2S_3O_{13}.16H_2O$. Idria, Gorizia, Italy.

Igalikite. Ab. AM 20, 138 (Feb. 1935). MA 5, 484. Ab. MM 23, 631 (No. 146).

Fine-grained. Light brown, red or gray. H 5.5. G 2.559. A hydrous silicate of sodium, potassium, and aluminum. Approximately $NaKAl_4Si_4O_{15}.2H_2O$. Igaliko, South Greenland.

Igmerald. Ab. MM 24, 613 (No. 158). MA 6, 200, 497.

Trade name for artificial (synthetic) emerald. Prismatic crystals up to 1 cm. long. G 2.662.

Ihleite. AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).

Preferred spelling for ihlëite, DS No. 774.

Illite. AM 22, 813–829 (July 1937). MA 7, 13.

A general term for the clay-mineral constituent of argillaceous sediments belonging to the mica-group. Occurs in micaceous particles less than one micron. Gray, light green, or yellowish brown. A silicate of potassium, aluminum, iron, and magnesium, with water. $2K_2O.3(Mg,Fe)O.8(Al,Fe)_2O_3.24SiO_2.12H_2O$. From clays and shales in Illinois.

Imerinite. **Ap. III, 41. DT 575. Ab. MM 16, 363 (No. 77). CA 8, 3172; 9, 2365.**

A variety of soda-amphibole containing only a small amount of sesquioxides and so allied to soda-richterite. Colorless to blue needles, resembling tremolite. Imerina, Madagascar.

Impsonite. **Ap. II, 55. DT 778. Ab. MM 15, 423 (No. 72).**

An asphalt closely similar to albertite, but differing in being almost insoluble in turpentine. Impson Valley, Oklahoma.

Inderite. **Ab. AM 23, 294 (Apr. 1938).**

Small nodules or aggregates of minute needles. White. G 1.80. A hydrous magnesium borate. $Mg_2B_6O_{11}.15H_2O$. Lake Inder borate deposits, 150 km. north of Caspian Sea, Russia.

Inyoite. **Ap. III, 41. DT 743. Ab. MM 17, 352 (No. 82). MA 1, 258 and 409. CA 10, 2082.**

Monoclinic. Large tabular crystals commonly altered to meyerhofferite. Colorless. H 2. G 1.875. A hydrous borate of calcium. $2CaO.3B_2O_3.13H_2O$. Inyo County, California; Hillsborough, New Brunswick.

Iochroite. **Ab. AM 6, 70 (Mar. 1921). CA 15, 220.**

Optically identical with tourmaline. Finland.

Iodembolite. **Ap. II, 55 and 25. DT 461. MM 13, 174–185 (No. 60). Ab. MM 13, 369 (No. 62).**

A name to replace iodobromite whose composition is not definite. Used to designate minerals of the cerargyrite group containing chlorine, bromine, and iodine. Ag(Cl,Br,I).

Iolanthite. **Ab. MM 18, 381 (No. 87).**

Trade name for a jasper-like mineral used as a gem. Crook County, Oregon.

Ionite. **DT 682. AM 12, 78 (Mar. 1927); 13, 145 (Apr. 1928). MA 3, 370 and 487. Ab. MM 21, 566 (No. 122). CA 22, 3116.**

Monoclinic. Scales. A hydrous aluminum silicate. $5H_2O.2Al_2O_3.6SiO_2$. Ione formation, California. Identical with anauxite. Not to be confused with ionite, DS p. 1008.

Iosene. **Ab. MM 22, 621 (No. 134).**

Incorrect spelling of josen.

Iosiderite. **Ab. MM 20, 455 (No. 110).**

Same as iozite.

Iozite. Ab. AM 11, 77 (Mar. 1926). MA 2, 383. Ab. MM 20, 455 (No. 110). CA 18, 3584; 22, 3375.

Minute granules in lava. Black. Free ferrous oxide, FeO, liberated in the early stages of crystallization of the magma.

Iozites. MA 2, 383. Ab. MM 20, 455 (No. 110).

Volcanic magnetite frequently shows some excess of FeO. For the gradations from FeO to magnetite, Fe_3O_4, the generic term iozites is suggested. See also iozite.

Iron-åkermanite. DT 607. Ab. MM 20, 456 (No. 110). MA 2, 427.

A hypothetical molecule assumed to be present in melilite. $Ca_2Fe''Si_2O_7$.

Iron andradite. Ab. AM 15, 203 (May 1930). MA 3, 150. Ab. MM 21, 566 (No. 122).

Isometric. A garnet. A silicate of ferrous and ferric iron. $3FeO.Fe_2O_3.3SiO_2$. Identical with skiagite. Glen Skiag, Scotland; India.

Iron-anthophyllite. DT 570. AM 6, 173 (Dec. 1921). Ab. MM 18, 381 (No. 87); 24, 221 (No. 151). MA 1, 252; 6, 118. CA 30, 4435.

Same as ferroanthophyllite. Later proved to be identical with iron hypersthene.

Iron-antigorite. Ab. MM 21, 566 (No. 122).

Identical with ferro-antigorite.

Iron-beidellite. DT 682. Ab. AM 11, 168 (June 1926). Ab. MM 21, 566 (No. 122).

A ferriferous variety of beidellite, containing 18.54% Fe_2O_3.

Iron-brucite. CA 21, 1781.

Same as eisenbrucite, DS p. 253.

Iron-copper chalcanthite. DT 761. Ab. AM 7, 75 (Apr. 1922). MA 1, 121. Ab. MM 19, 353 (No. 98).

Triclinic. A hydrous sulfate of iron and copper. $(Fe,Cu)O.SO_3.5H_2O$. Formed by the natural dehydration of pisanite.

Iron-cordierite. MA 6, 479. Ab. MM 20, 456 (No. 110).

A violet cordierite in which magnesium is largely replaced by ferrous iron.

Iron-dolomite. Ab. MM 21, 566 (No. 122).

Same as ferrodolomite.

Iron-epidote. **Ab. MM 20, 456 (No. 110).**
Same as ferriepidote.

Iron-gedrite. **Ab. MM 19, 342 (No. 98).**
Name given to those gedrites which are rich in iron.

Iron-gehlenite. **DT 607. MA 2, 427. Ab. MM 20, 456 (No. 110).**
A hypothetical molecule assumed to be present in melilite. $Ca_2Fe'''_2SiO_7$. Same as ferri-gehlenite.

Iron-hypersthene. **Ab. MM 24, 613 (No. 158).**
An iron-rich hypersthene (FeO, 42%). A metasilicate of magnesium and iron. $MgSiO_3.3FeSiO_3$. Identical with ferrosilite.

Iron-kaolinite. **Ab. MM 24, 613 (No. 158).**
A ferruginous variety of kaolinite.

Iron-leucite. **Ab. MM 21, 567 (No. 122).**
An artificial pseudoisometric silicate of potassium and iron, $KFeSi_2O_6$, analogous to leucite, but with ferric oxide replacing alumina.

Iron-monticellite. **Ab. MM 24, 613 (No. 158).**
A type of monticellite in which iron replaces magnesium. An orthosilicate of calcium and iron. $Ca_2SiO_4.Fe_2SiO_4$.

Iron-orthoclase. **Ab. MM 21, 567 (No. 122).**
Identical with ferri-orthoclase.

Iron-pyrochroite. **DT 508. Ab. AM 7, 214 (Dec. 1922). Ab. MM 20, 456 (No. 110).**
A ferriferous variety of pyrochroite. Acicular crystals. Langban, Sweden.

Iron-pyroxene. **Ab. MM 24, 613 (No. 158).**
A general term for pyroxenes rich in iron, such as hedenbergite and augite.

Iron-rhodonite. **AM 16, 500–518 (Nov. 1931); 22, 360 (May 1937). MA 4, 527. Ab. MM 24, 613 (No. 158).**
A variety of rhodonite rich in iron. A silicate of manganese, calcium, and iron. $(Mn,Ca)(Mn,Fe)Si_2O_6$. The original mineral and the slag mineral have been proved to be identical with pyroxmangite.

Iron-sarcolite. **AM 5, 16 (Jan. 1920). Ab. MM 18, 381 (No. 87).**
A hypothetical molecule, $3CaO.Fe_2O_3.3SiO_2$, corresponding with sarcolite, but containing ferric iron in place of aluminum.

Iron-strigovite. **Ab. AM 21, 269 (Apr. 1936). Ab. MM 24, 613 (No. 158). CA 31, 6144.**
"A term proposed for the green iron silicate from siderite sandstones of Rödingeberg," Sweden. A hydrous silicate of iron, magnesium, and aluminum. Probably $2(Fe,Mg)O.(Fe,Al)_2O_3.2SiO_2.2H_2O$. "The iron analogue of strigovite."

Iron-wollastonite. **AM 22, 727 (May 1937). Ab. MM 24, 614 (No. 158).**
Wollastonite with $FeSiO_3$ in solid solution. County Antrim, Ireland.

Irvingite. **Ap. II, 57. DT 663. Ab. MM 14, 400 (No. 67). CA 1, 1961.**
A mica in crystals up to over an inch. Grayish, yellowish, pinkish white. An alkali-mica. $6SiO_2.Al_2O_3.2(K_2,Na_2,Li_2)O.(F,OH)$. Wausau, Wisconsin.

Ishikawaite. **DT 694. Ab. AM 8, 230 (Dec. 1923); AM 9, 175 (Aug. 1924). MA 2, 9. Ab. MM 20, 456 (No. 110). CA 17, 252.**
Orthorhombic. Black. H 5–6. G 6.2–6.4. A tantalo-niobate of uranium with ferrous iron and rare earths. Somewhat like samarskite. $Fe_7(UO_2)_3Ce_2(Nb,Ta)_{12}O_{43}$. Ishikawa, Japan.

Ishkildite. **CA 31, 4621.**
Same as ishkyldite.

Ishkyldite. **AM 21, 48–54 (Jan. 1936). MA 6, 259. CA 30, 3366.**
Fibrous. Silvery bluish green. H 1. G 2.62. A hydrous silicate of magnesium. $H_{20}Mg_{15}Si_{11}O_{47}$. A variety of chrysotile, differing in optical properties from alpha-chrysotile. Near Ishkyldino, Middle Volga district, Russia.

Isomicrocline. **Ap. III, 42. Ab. MM 15, 423 (No. 72).**
An optically positive variety of microcline.

Iso-orthoclase. **AM 18, 478 (Nov. 1933). MA 5, 438. Ab. MM 23, 631 (No. 146).**
A variety of orthoclase differing from ordinary orthoclase in optical orientation. Urals; Mont Blanc, France; near Luray, Virginia.

Isoperthite. **Ab. MM 21, 567 (No. 122).**

Perthitic intergrowths of the same kind of feldspar.

Isorthoclase. Isorthose. **Ap. II, 57. DT 538. Ab. MM 23, 631 (No. 146); 14, 400 (No. 67).**

Same as iso-orthoclase.

J

Jackymovite. **MA 6, 345 (No. 149). CA 30, 6676.**

A hydrous silicate of uranium and copper. $CuO.2UO_3.2SiO_2.6H_2O$. Later proved to be identical with cuprosklodowskite from Katanga. Jáchymov, Bohemia.

Jadeite-aegirite. **DT 562. Ab. MM 17, 352 (No. 82).**

An egirite-like pyroxene which, in addition to the egirite molecule, $NaFeSi_2O_6$, also contains considerable of the jadeite molecule, $NaAlSi_2O_6$. Golling, Salzburg.

Jäneckeite. **MA 4, 366. Ab. MM 23, 631 (No. 146).**

A constituent of Portland cement clinkers. A silicate of calcium and aluminum. $8CaO.Al_2O_3.2SiO_2$.

Janite. **Ab. AM 20, 314 (Apr. 1935). MA 5, 485. Ab. MM 23, 631 (No. 146). CA 29, 4700.**

Tetragonal (?). Plates aggregated in spherulites. Red. Soft. G 2.32. A hydrous silicate of aluminum, iron, calcium, magnesium, etc. Related to chloropal or celadonite. Janowa Valley, Poland.

Janosite. **Ap. II, 57; III, 42. DT 767. Ab. MM 14, 401 (No. 67). CA 1, 400; also 1372 and 1961; 3, 1975.**

Identical with copiapite. Vashegy, Hungary.

Japanite. **Ab. MM 24, 614 (No. 158). CA 32, 886.**

Identical with pennine.

Jarlite. **Ab. AM 20, 137 (Feb. 1935). Ab. MM 23, 631 (No. 146). MA 5, 387. CA 29, 4697.**

Monoclinic. Crystals and spherulites. Colorless, brownish. H 3–4. G 3.93. A fluoride of sodium, strontium, and aluminum. $NaSr_3Al_3F_{16}$. Ivigtut, Greenland.

Jarrowite. **Ap. I, 37. MM 11, 264 (No. 53). Ab. MM 11, 328 (No. 53).**

A local name for pseudomorphs of calcite perhaps after celestite, from the Jarrow Docks, Durham, England. Same as

thinolite. They resemble the "barley-corn" pseudomorphs from Sangerhausen (pseudo-gaylussite).

Jentschite. **Ap. II, 58. Ab. MM 14, 401 (No. 67).**

Same as lengenbachite. Not to be confused with jenzschite, DS p. 194.

Jeromite. **DT 410. AM 13, 227 (June 1928); 13, 594 (Dec. 1928). MA 4, 12. Ab. MM 21, 567 (No. 122).**

Amorphous. Globular. Black. A sulfide of arsenic containing some selenium. $As(S,Se)_2$. Similar to arsensulfurite. Jerome, Arizona.

Ježekite. **Ap. III, 42. DT 712. Ab. MM 17, 352 (No. 82).**

Monoclinic. Colorless to white. H 4.5. G 2.94. A basic fluo-phosphate of aluminum, calcium, and sodium, with a little lithium. $Na_4CaAl(AlO)P_2O_8F_2(OH)_2$. Near Ehrenfriedersdorf, Saxony, Germany.

Joaquinite. **Ap. III, 42. DT 692. MA 5, 191. Ab. MM 15, 423 (No. 72). CA 26, 5038.**

Orthorhombic. Minute crystals. Honey-yellow. H 5.5. G 3.89. A titano-silicate of iron, sodium, and barium. $NaBa(Ti,Fe)_3Si_4O_{15}$. Occurs with benitoite and neptunite in San Benito County, California.

Johannsenite. **AM 17, 575 (Dec. 1932). Ab. AM 18, 113 (Mar. 1933). Ab. MM 23, 631 (No. 146).**

Monoclinic. A pyroxene; the manganese analogue of diopside and hedenbergite. $MnCaSi_2O_6$. Bohemia district, Oregon; Schio-Vicentin, Italy.

Johnsonite. **Ab. MM 14, 401 (No. 67).**

A fibrous alum. Renamed masrite.

Johnstonite. **Ab. MM 12, 385 (No. 58).**

Same as vanadinite.

Johnstonotite. **Ab. MM 12, 385 (No. 58). CA 8, 40.**

A variety of garnet. Tasmania.

Jordisite. **Ab. MM 15, 423 (No. 72).**

Colloidal. Powdery. Black. Molybdenum sulfide. Considered distinct from molybdenite. Freiberg, Saxony, Germany.

Josen. **MA 2, 474; 4, 349.**

A hydrocarbon extracted from lignite. $C_{18}H_{30}$. Same as hartite, DS p. 1001. Köflach, Styria.

Josephinite. **Ap. I, 38. DT 408. Ab. MM 11, 329 (No. 53).**
Massive, granular, forming the metallic portion of rolled pebbles. Gray. H 5. A nickeliferous iron. Fe_2Ni_5 or $FeNi_3$. Josephine County, Oregon.

Juanite. **AM 17, 349–354 (July 1932). Ab. MM 23, 632 (No. 146). MA 5, 146. CA 26, 4777.**
Orthorhombic (?). Fibrous sheaf-like aggregates. White. H 5.5. G 3.015. A hydrous silicate of calcium, magnesium, and aluminum. $4H_2O.10CaO.4MgO.Al_2O_3.11SiO_2$. An alteration product of melilite. San Juan Mts., Colorado.

Juddite. **Ap. III, 42. Ab. MM 15, 423 (No. 72). CA 3, 1513.**
A manganiferous amphibole associated with the manganiferous pyroxene, blanfordite. Nagpur district, India.

Julienite. **DT 740. Ab. AM 14, 41 (Jan. 1929); 17, 496 (Oct. 1932). MA 4, 15 and 501. Ab. MM 21, 567 (No. 122). CA 23, 1081.**
Tetragonal. Crusts of minute needles. Blue. G 1.594. Resembles connellite and buttgenbachite and was assumed to be a hydrous chloro-nitrate of cobalt, but later shown to contain neither chlorine nor nitrogen. Chamibumba, Katanga, Belgian Congo.

Jurupaite. **DT 584. AM 6, 107 (July 1921). MA 1, 253. Ab. MM 19, 342 (No. 98). CA 15, 3057.**
Monoclinic (?). Radiating-fibrous. White. H about 4. G 2.75. Hydrous silicate of calcium and magnesium. $H_2(Ca, Mg)_2Si_2O_7$. Crestmore, Jurupa Mts., California.

Justite. (*a*) **Ap. II, 58. Ab. MM 14, 401 (No. 67).** (*b*) **Ab. MM 19, 343 (No. 98).**
(*a*) Same as koenenite. (*b*) Tetragonal. Crystals in a furnace slag. Allied to melilite. A silicate of calcium, magnesium, iron, zinc, and manganese. $(Ca,Mg,Fe,Zn,Mn)_3Si_2O_7$.

K

Kalbaite. **DT 636. Ab. MM 17, 352 (No. 82).**
A hypothetical molecule assumed to be present in tourmaline, expressed by the formula $M'_8Al_4B_2Si_4O_{21}$. The tourmaline from DeKalb, New York, is nearly pure kalbaite.

Kalgoorlite. Ap. I, 38; II, 58. DT 423. Ab. MM 12, 385. MM 13, 282–288 (No. 61); 14, 122 (No. 64).

Described as a new telluride of gold, silver, and mercury. Shown to be a mixture of petzite and coloradoite. Kalgoorlie, Western Australia

Kaliastrakanite. Ap. I, 38. Ab. MM 11, 329 (No. 53).

Same as leonite.

Kaliblödite. Ap. I, 38. Ab. MM 11, 329 (No. 53).

Same as leonite.

Kalicinite. Kalicite. MM 19, 343 (No. 98).

Same as kalicine, DS p. 294 (not 705).

Kalioalunite. Ab. AM 2, 120 (Sept. 1917). Ab. MM 18, 381 (No. 87). MA 1, 379.

Typical alunite; the potash end member of the alunite group. $K_26Al(OH)_2.4(SO_4)$.

Kalio-carnotite. Ab. MM 17, 352 (No. 82).

The original carnotite, containing potassium, as distinct from calcio-carnotite. Also called potassio-carnotite.

Kaliohitchcockite. Ab. AM 2, 120 (Sept. 1917). Ab. MM 18, 381 (No. 87). MA 1, 379.

The potash-bearing end member of the alunite-beudantite group. $K_2H_46Al(OH)_2.4(PO_4)$.

Kalithomsonite. DT 656. Ab. AM 10, 132 (May 1925). MA 2, 385. Ab. MM 20, 457 (No. 110). MM 23, 305 (No. 140). CA 19, 228.

Originally described as a variety of thomsonite containing over 6% K_2O. Later shown to be an independent species and named ashcroftine. Narsarsuk, Greenland.

Kalium-astrakanite. Ap. I, 38. Ab. MM 11, 329 (No. 53).

Same as kaliastrakanite.

Kalium-blödite. Ap. II, 59.

Same as leonite.

Kalkowskite. DT 693. Ab. AM 10, 135 (May 1925).

Grains or thin plates with fibrous structure. Black or brown. H 3–4. G 4.01. Silico-titanate of iron and cerium. $(Fe, Ce)_2O_3.4(Ti,Si)O_2$. Possibly identical with arizonite or pseudobrookite. Minas Geraes, Brazil.

Kalkowskyn. MA 2, 419. Ab. MM 20, 457 (No. 110).
Same as kalkowskite.

Kamarezite. Ap. I, 38. DT 766. Ab. MM 11, 108 (No. 50); 11, 329 (No. 53).
Orthorhombic (?). Elongated and tabular crystals. Grass-green. H 3. G 3.98. A basic hydrous sulfate of copper. $3CuO.SO_3.8H_2O$. Kamareza, Laurium, Greece.

Kanbaraite A and Kanbaraite B. MA 4, 501. Ab. MM 22, 621 (No. 134). CA 24, 4484.
A hexagonal acid clay (Kanbara clay) from Japan, $H_4Al_2MgSi_6O_{18}.xH_2O$, is called kanbaraite A. The dehydrated, isometric form, $H_4Al_2MgSi_6O_{18}$, is called kanbaraite B.

Kappa-diaspore. CA 7, 3944.
The colloidal form of diaspore, heretofore known as sporogelite.

Kappa-limonite. CA 7, 3944.
The colloidal form of limonite, heretofore known as stilpnosiderite.

Kappa-pyrite. CA 7, 3944.
The colloidal form of pyrite, heretofore known as melnikovite.

Karachaite. MA 7, 9. CA 32, 4108.
An asbestiform variety of chrysotile. G 2.20. A hydrous silicate of magnesium. $MgO.SiO_2.H_2O$. Karachai, Northwest Caucasus, Russia.

Karystiolite. Ab. MM 15, 423 (No. 72).
Suggested as an alternative for chrysotile. Compare MM 14, 143–148 (No. 65).

Kasoite. MA 6, 489. CA 32, 885.
Monoclinic. Elongated, prismatic crystals. G 3.003. A barium feldspar, containing 25.50% BaO. Near celsian. Kaso mine, Tochigi, Japan.

Kasolite. DT 688. Ab. AM 7, 128 (July 1922). MA 1, 249; 3, 233. CA 16, 1042.
Monoclinic. Minute prismatic crystals and massive. Yellow to brown. H 4.5. G 5.962. A hydrous silicate of lead and uranium. $PbO.UO_3.SiO_2.H_2O$. Kasolo, Katanga, Belgian Congo; Wölsendorf, Bavaria, Germany.

Kataforite. Ap. I, 38.
Same as kataphorite.

Katangite. DT 686. Ab. AM 8, 39 (Feb. 1923). AM 9, 34 (Feb. 1924). MA 1, 250. Ab. MM 19, 343 (No. 98). CA 16, 3607.
The colloidal phase of chrysocolla. Bluish. Hydrous copper silicate. $CuSiO_3.xH_2O$. Identical with cornuite. Katanga, Belgian Congo.

Kataphorite. DT 579. Ab. MM 12, 385 (No. 58).
Same as cataphorite.

Katoptrite. DT 737. Ab. MM 18, 382 (No. 87). MA 1, 19.
Same as catoptrite.

Kauaiite. Ap. I, 38. Ab. MM 11, 329 (No. 53); 11, 166 (No. 51).
Powdery, chalk-like. White or pale cream color. G 2.566. A basic sulfate of aluminum, potassium, and sodium. $2Al_2O_3.3(K,Na,H)_2O.SO_3$. Island of Kauai, Hawaiian Islands.

Kayserite. DT 503. Ab. AM 8, 187 (Oct. 1923). MA 2, 12. Ab. MM 20, 457 (No. 110). CA 17, 2546.
Monoclinic. A micaceous alteration product on corundum. H 5–6. Aluminum hydroxide. AlO(OH). "A dimorphous form of this compound, the orthorhombic form of which is diaspore." Redondo, Uruguay.

Keeleyite. DT 446. Ab. AM 8, 167 (Sept. 1923). AM 12, 405–408 (Nov. 1927). MA 2, 11; 3, 453. Ab. MM 20, 457 (No. 110). CA 17, 1403; 22, 2903.
Orthorhombic (?). Acicular crystals. Dark gray. H 2. G about 5.21. A sulfantimonite of lead and iron. $4PbS.FeS.5Sb_2S_3$. In AM 13, 29, 30 (Jan. 1928) Wherry argues that keeleyite is "only an impure variety of zinkenite." Oruro, Bolivia.

Kehoeite. Ap. I, 38. DT 733. Ab. MM 11, 329 (No. 53).
Amorphous, massive. G 2.34. A basic hydrous phosphate of aluminum, zinc, etc. $4Al_2O_3.(Zn,Ca)O.5P_2O_5.9H_2O$. Galena, South Dakota.

Kempite. DT 468. Ab. AM 10, 39 (Feb. 1925). AM 10, 66 (Mar. 1925). MA 2, 338. Ab. MM 20, 457 (No. 110). CA 18, 3159.
Orthorhombic. Minute, prismatic crystals. Emerald-green. H about 3.5. G 2.94. A hydrous oxychloride of manganese. $MnCl_2.3MnO_2.3H_2O$. Alum Rock Park, California.

Kentsmithite. **AM 6, 171 (Dec. 1921). MA 2, 420. Ab. MM 20, 457 (No. 110).**

"This name has become current among miners and prospectors for any of the black or very dark vanadium-bearing sandstones." Montrose County, Colorado.

Keramite. **Ab. MM 11, 329 (No. 53); 21, 568 (No. 122).**

(*a*) A clay resulting from the alteration of scapolite. Bavaria. (*b*) An aluminum silicate, $3Al_2O_3.2SiO_2$, obtained artificially by heating kaolinite at 1700°. Evidently the same as mullite.

Kernite. **DT 744. AM 12, 24, 25 (Jan. 1927). Ab. AM 15, 276 (July 1930). MA 3, 271. Ab. MM 21, 568 (No. 122). MA 6, 335. CA 22, 2906.**

Monoclinic. Colorless to white. Resembles selenite cleavages. H 2.5–3. G 1.953. A hydrous borate of sodium. $Na_2B_4O_7.4H_2O$. Kramer, Kern County, California.

Kertchenite. **CA 1, 1835.**

Same as kertschenite.

Kertschenite. **Ap. II, 59. DT 732. Ab. MM 14, 401 (No. 67).**

Crystalline aggregates. Fibrous radiated. Dark green. H 3.5. G 2.65. A basic hydrous phosphate of iron, with small amounts of manganese and magnesium. $(Fe,Mn,Mg)O.Fe_2O_3.P_2O_5.7H_2O$. Kertsch Peninsula, Crimea, Russia.

Kerzinite. **DT 677. Ab. AM 14, 41 (Jan. 1929). MA 3, 492. Ab. MM 21, 568 (No. 122). CA 22, 4420.**

A hydrous nickel silicate found in peat. Urals.

Keweenawite. **Ap. II, 59. DT 437. Ab. MM 13, 369 (No. 62). MA 3, 401. CA 19, 3076.**

Massive. Fine granular. Pinkish brown, resembling niccolite. H 4. G 7.681. Described as an arsenide of copper and nickel with a small amount of cobalt, $(Cu,Ni,Co)_2As$. Later proved to be a mixture of domeykite and niccolite with minor quantities of other metallic arsenides. Mohawk mine, Keweenaw County, Michigan.

Khakassite. **Ab. MM 22, 621 (No. 134).**

Name replaced by alumohydrocalcite.

Khibinite. **Ab. AM 21, 269 (Apr. 1936).**

"A mineral related to lovchorrite." Kola Peninsula, Russian Lapland.

Khlopinite. MA 6, 258. CA 31, 4590.
Same as chlopinite.

Kietyöite. Ab. MM 12, 385 (No. 58).
Apatite from Kietyö, Finland.

Kievite. Ab. MM 20, 457 (No. 110).
A colorless or yellowish green hornblende in grains or fibers surrounded by green hornblende. Government of Kiev, Russia; Finland.

Kikukwaseki. MA 3, 9.
"A radial aggregate of xenotime and zircon." Also called chrysanthemum-stone. Ishikawa, Iwaki province, Japan.

Kilbreckanite. Ab. MM 22, 621 (No. 134).
Another spelling of kilbrickenite, DS No. 154.

Kinradite. Ab. MM 16, 363 (No. 77).
"Local trade-name for a spherulitic jasper-like quartz." California.

Kipushite. DT 729. Ab. AM 12, 326 (Aug. 1927). MA 3, 269; 5, 94. Ab. MM 21, 568 (No. 122). CA 21, 2242.
Monoclinic. Minute pyramidal crystals. Deep blue. H 4. G 3.37. A basic hydrous phosphate of copper and zinc. $4CuO.2ZnO.P_2O_5.6\frac{1}{2}H_2O$. Identical with arakawaite. Same as veszelyite with no arsenate. Kipushi, Belgian Congo.

Kiscellite. Ab. AM 20, 315 (Apr. 1935). MA 5, 485. Ab. MM 23, 632 (No. 146).
"A sulfur-bearing hydrocarbon resin (without oxygen)." Brown. H 2. G 1.186. "Resembles amber, ajkaite and telegdite." The first representative amongst minerals of a hydrocarbon sulfide. Budapest, Hungary.

Klastogelite. CA 29, 5786.
Description not abstracted. Uruguay.

Klebelsbergite. DT 770. Ab. AM 15, 242 (June 1930). MA 4, 150. Ab. MM 22, 621 (No. 134). CA 24, 4244.
Monoclinic. Small radiated bladed crystals on stibnite or barite. A basic hydrous sulfate of antimony. Felsöbánya, Rumania.

Kleinite. Ap. II, 59; III, 43. DT 459. Ab. MM 14, 402 (No. 67). CA 1, 2453.

Hexagonal. Small, short, prismatic crystals. Yellow to orange. H 3.5. G 7.975–7.987. An oxychloride of mercury, containing small amounts of nitrogen and sulfate. "May be a mixture of a mercury-ammonium chloride, in great preponderance with an oxychloride and sulfate or oxysulfate of mercury." Terlingua, Texas.

Kliachite. Ap. III, 43. Ab. MM 15, 424 (No. 72); 16, 357 (No. 77).
Same as cliachite and sporogelite.

Klinozoisite. Ap. I, 39. Ab. MM 11, 329 (No. 53).
Same as clinozoisite.

Kljakite. Ap. III, 43. Ab. MM 16, 363 (No. 77).
Same as kliachite.

Klockmannite. DT 419. Ab. AM 14, 41 (Jan. 1929). MA 4, 14. Ab. MM 21, 568 (No. 122). CA 23, 1081.

Perhaps hexagonal. Granular. Reddish violet to slate-gray. H 3. G probably more than 5. Copper selenide. CuSe. Sierra de Umango, Argentina; Lehrbach, Harz, Germany; Skrikerum, Sweden.

Klopinite.
Same as chlopinite.

Knollite. AM 19, 287 (June 1934). MA 5, 296. Ab. MM 23, 632 (No. 146).
Same as zeophyllite.

Knopite. Ap. I, 39. DT 692. Ab. MM 11, 158 (No. 51); 11, 329 (No. 53).

Isometric. Cubes or cubo-octahedrons. Black or lead-gray. H 5–6. G 4.11–4.29. A titanate of calcium, with some cerium. Alnö, Sweden.

Kobalt-oligonspat.
See cobalto-sphaerosiderite.

Kochenite. Ab. MM 12, 385 (No. 58).
A fossil resin, like amber. Kochenthal, Tyrol.

Kochite. DT 682. Ab. AM 9, 18 (Jan. 1924). MA 2, 51. Ab. MM 20, 458 (No. 110). CA 17, 3659; 21, 1782.

Isometric. Granular aggregates of minute crystals. White. G 2.929. A hydrous silicate of aluminum. Perhaps $2Al_2O_3.3SiO_2.5H_2O$. Kochi-mura, Rikuchu province, Japan.

Koechlinite. Ap. III, 43. DT 774. Ab. MM 17, 353 (No. 82). MA 1, 258. CA 10, 2083.

Orthorhombic. Minute, tabular crystals. Greenish yellow. A molybdate of bismuth. $Bi_2O_3.MoO_3$. Schneeberg, Saxony, Germany.

Koenenite. Ap. II, 60. DT 468. Ab. MM 13, 369 (No. 62).

Rhombohedral. Scaly crusts. Red, due to minute scales of hematite. Very soft. G 1.98. An oxychloride of aluminum and magnesium. $Al_2O_3.3MgO.2MgCl_2.6$ or $8H_2O$. Volpriehausen, Hanover, Germany.

Koettigite. AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).

Preferred spelling for köttigite, DS No. 604

Kolbeckine. Ab. AM 18, 223 (May 1933). MA 5, 199. Ab. MM 23, 632 (No. 146). CA 27, 1297.

Resembles fine-grained pyrolusite. Black. Described as a sulfide of tin, Sn_2S_3, Bolivia, but see herzenbergite. Not the same as kolbeckite.

Kolbeckite. DT 703. Ab. AM 13, 592 (Dec. 1928); 19, 36 (Jan. 1934). MA 3, 472. Ab. MM 21, 568 (No. 122). CA 22, 4413.

Monoclinic (?). Prismatic crystals. Blue to gray. H 3.5–4. G 2.39. A hydrous silicophosphate of beryllium. Near Schmiedeberg, Saxony, Germany. Not the same as kolbeckine.

Kolovratite. DT 722. Ab. AM 11, 136 (May 1926). MA 2, 417. Ab. MM 20, 458 (No. 110). CA 19, 2796.

Amorphous or crystalline. Botryoidal crusts. Yellow. Believed to be a vanadate of nickel. Ferghana, Russian Turkestan.

Kondrikite. MA 6, 341. CA 32, 887.

Yellowish mass. "Apparently a natrolite with microscopic inclusions of a rinkite-like mineral." $m Na_2Al_2Si_3O_{10}.n(Ce_4[Ti_2O_6]_3.10Ca_2Si_2O_6)$. An alteration product of lovchorrite. Chibina tundra, Kola Peninsula, Russian Lapland.

Kondrikovite. MA 6, 343.

Identical with kondrikite.

Korea-augite. **Ab. AM 12, 356 (Sept. 1927). MA 3, 199. Ab. MM 21, 569 (No. 122)**

A soda-pyroxene or augite. Minute green rods in hakutolite (an acidic alkali-trachyte). Tonghodong, Korea.

Kosmochlor. **Ap. I, 39. Ab. MM 11, 329 (No. 53).**

Same as cosmochlore.

Kosmochromite. **Ap. I, 39. Ab. MM 12, 385 (No. 58).**

Same as cosmochlore.

Kossmatite. **DT 672. Ab. AM 10, 448 (Dec. 1925). MA 2, 418. Ab. MM 20, 458 (No. 110). CA 20, 885.**

Rosettes of scales. Colorless. H 2.5–3. A hydrous fluosilicate of magnesium, calcium, and aluminum. Possibly $H_{18}Mg_3Ca_7Al_6Si_7O_{42}F$. Prilep, Western Macedonia, Jugoslavia. It is a brittle mica.

Kramerite. **DT 745. Ab. AM 15, 276 (July 1930). MA 4, 245. Ab. MM 22, 622 (No. 134).**

Identical with probertite.

Kratochvilite. **MA 7, 11.**

Pearly scales. Pale bluish violet or greenish. G 1.19. A hydrocarbon. $C_{13}H_{10}$ (same as fluorene). Formed in the burning waste heaps of coal at Kladno, Bohemia.

Krausite. **DT 765. AM 16, 352–360 (Sept. 1931). MA 5, 51. Ab. MM 22, 622 (No. 134). CA 25, 5644.**

Monoclinic. Minute, long, prismatic crystals; crystalline crusts. Yellowish green. H 2.5. G 2.84. A hydrous sulfate of iron and potassium. $K_2SO_4.Fe_2(SO_4)_3.2H_2O$. Borate, Calico Hills, California; Valardeña, Durango, Mexico.

Kreuzbergite. **DT 732. Ab. AM 6, 66 (Mar. 1921). MA 1, 125. Ab. MM 19, 343 (No. 98). CA 15, 1002.**

Orthorhombic. White to yellowish. G 2.139. A hydrous phosphate of aluminum, iron, and manganese. "Variety of childrenite." Wherry. Kreuzberg, Bavaria, Germany.

Kroehnkite. **AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).**

Preferred spelling for kröhnkite, DS No. 776.

Ktypeite. **Ap. I, 39. DT 522. Ab. MM 12, 385 (No. 58); 13, 194 (No. 60); 14, 122 (No. 64).**

Calcium carbonate in form of pisolites. Carlsbad, Bohemia. Shown to be identical with aragonite

Kubeite. **Ap. I, 39. Ab. MM 12, 386 (No. 58).**
A misprint for rubrite, DS p. 964.

Kundaite. **Ab. MM 17, 353 (No. 82).**
A variety of grahamite from Kunda, Esthonia.

Kunzite. **Ap. II, 61. DT 564. Ab. MM 13, 369 (No. 62).**
A lilac-colored variety of spodumene. Used as a gem. Pala, California; Madagascar.

Kurskite. **DT 706. Ab. AM 9, 118 (May 1924); 9, 155 (July 1924). MA 2, 54. Ab. MM 20, 459 (No. 110).**
Cryptocrystalline. Fibrous nodules. Black. G 2.9. A calcium fluo-phosphate and carbonate. $2Ca_3(PO_4)_2.CaF_2.CaCO_3$. A phosphorite near staffelite. Kursk and elsewhere in Russia.

Kutnohorite. **Ap. II, 61. Ab. AM 13, 569 (Nov. 1928). Ab. MM 14, 402 (No. 67).**
Rhombohedral. Cleavage masses. Reddish white. A carbonate of calcium, manganese, iron, and magnesium. $(Ca,Mg,Fe,Mn)CO_3$ with $Ca:Mg:Fe:Mn = 7:2:1:5$. Kutná Hora, Bohemia.

Kutnohorrite. **Ab. AM 13, 569 (Nov. 1928).**
Same as kutnohorite.

Kyanite. **AM 21, 191 (Mar. 1936).**
Preferred spelling for cyanite, DS No. 400.

Kylindrite. **Ap. I, 40. Ab. MM 11, 329 (No. 53).**
Same as cylindrite.

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Laavenite. **AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).**
Preferred spelling for låvenite, DS No. 332.

Labite. **Ab. AM 22, 811 (June 1937). Ab. MM 24, 615 (No. 158). MA 6, 439. CA 32, 886.**
Orthorhombic (?). Fibers in serpentine. Yellowish green. G about 2.25. A hydrous silicate of magnesium. $H_2MgSi_3O_8.H_2O$. Laba River, Northern Caucasus, Russia.

Labratownite. **Ab. AM 11, 138 (May 1926). Ab. MM 21, 569 (No. 122).**
A contraction of labradorite-bytownite. Feldspars of the palgioclase series ranging in composition from $Ab_{40}An_{60}$ to $Ab_{30}An_{70}$.

Lacroisite. **Ap. II, 61. Ab. MM 13, 370 (No. 62). MM 14, 122 (No. 64).**

A mixture of rhodochrosite and rhodonite.

Lacroixite. **Ap. III, 44. DT 712. Ab. MM 17, 353 (No. 82). MA 1, 257.**

Monoclinic (?). Fragmentary crystals. Pale yellow or green. H 4.5. G 3.126. Possibly a basic fluo-phosphate of sodium, lithium, calcium, and aluminum with a trace of beryllium (no manganese), MA 1, 257. Ehrenfriedersdorf, Saxony, Germany.

Lagoriolite. **Ap. I, 40. Ab. MM 12, 386 (No. 58).**

An artificial soda-garnet, forming a connecting link between the garnet and the nosean groups. A silicate of sodium, calcium, and aluminum. $3(Na_2,Ca)O.Al_2O_3.3SiO_2$.

Lambertite. **DT 745. Ab. AM 5, 17 (Jan. 1920). AM 11, 155–159 (June 1926). MA 1, 22; 3, 313. Ab. MM 19, 343 (No. 98).**

Crystals. Canary-yellow. Supposed to be uranium trioxide, UO_3, but later definitely identified as uranophane. Lusk, Wyoming.

Lamprophyllite. **Ap. I, 40. Ab. AM 11, 294 (Nov. 1926). Ab. MM 12, 386 (No. 58). MA 5, 34. CA 22, 4412.**

Monoclinic. Flattened prisms. Golden brown. H 2–3. G 3.48–3.53. A fluo-titano-silicate of sodium (with iron and manganese). $7Na_2Si_4O_9.17RTiO_3.6NaF$. "Strikingly resembles astrophyllite." May be identical with molengraaffite. In MA 6, 333: orthorhombic; G 3.45; $(SiO_4)_2TiSrNa_2$. Kola Peninsula, Russian Lapland.

Lamprostibian. **Ap. I, 40. Ab. MM 11, 330 (No. 53).**

Foliated or scaly. Lead-gray, blood-red in very thin layers. H 4. Inferred to be an antimonate of iron and manganese. Sjö mine, Örebro, Sweden.

Landerite. **Ap. II, 61. DT 596. Ab. MM 14, 402 (No. 67).**

A variety of grossularite garnet. Dodecahedrons. Rose-pink. Also called rosolite and xalostocite. Xalostoc, Morelos, Mexico.

Landesite. **AM 15, 384 (Aug. 1930). Ab. MM 22, 622 (No. 134). MA 4, 344. CA 25, 1768.**

Orthorhombic (?). Rough octahedral-like crystals. Brown. G 3.026. A hydrous phosphate of manganese and iron. $3Fe_2$-

$O_3.20MnO.8P_2O_5.27H_2O$. An alteration product of reddingite. Poland, Maine.

Landevanite. **Ab. MM 14, 402 (No. 67).**

A pink clay probably identical with montmorillonite. Landevan, Morbihan, France.

Laneite. **DT 576. Ab. AM 11, 167 (June 1926). Ab. MM 17, 353 (No. 82). CA 17, 42.**

"A uniaxial variety of barkevikite." Dark colored.

Langbanite. **AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).**

Preferred spelling for långbanite, DS No. 419.

Langbeinite. **Ap. I, 40; III, 44. DT 748. Ab. MM 11, 330 (No. 53); 12, 51 (No. 54). MM 12, 159–166 (No. 56). CA 2, 1381.**

Isometric. In highly modified crystals. Colorless. H about 4. G 2.84. A sulfate of potassium and magnesium. $K_2Mg_2(SO_4)_3$. Westeregeln and Stassfurt, Prussia, Germany; Hall, Tyrol; Punjab, India.

Lapparentite. **Ab. AM 19, 287 (June 1934); 21, 332 (May 1936). MA 5, 390; 6, 149. CA 28, 729.**

Monoclinic. Long, prismatic. Colorless. H 3. A hydrous sulfate of aluminum. $Al_2O_3.2SO_3.10H_2O$. Resembles gypsum. Tierra Amarilla, Chile.

Lardite. **Ab. MM 13, 370 (No. 62).**

Hydrated silica, occurring in clay in central Russia. While moist it is white and slightly transparent, but on drying it becomes opaque. Not to be confused with lardite = pagodite, DS p. 622.

Larnite. **DT 600. Ab. AM 14, 338 (Sept. 1929). MM 22, 77–86 (No. 125). Ab. MM 22, 622 (No. 134). CA 23, 5442.**

Monoclinic. Fine grains and rough tabular crystals. Gray. A calcium orthosilicate. Ca_2SiO_4. Scawt Hill, Larne, County Antrim, Ireland.

Larsenite. **DT 600. AM 13, 142 (Apr. 1928); 13, 334–340 (July 1928). MA 3, 469. Ab. MM 21, 569 (No. 122). CA 22, 3115.**

Orthorhombic. Slender prisms or tabular. White. H about 3. G 5.90. A silicate of lead and zinc. $PbZnSiO_4$. Franklin, New Jersey.

Lasallite. **Ap. II, 61; III, 44. DT 680. Ab. MM 13, 370 (No. 62). CA 2, 1404.**

Masses of matted fibers resembling asbestus. White. G 1.477. A hydrous silicate of magnesium and aluminum. $3MgO.2Al_2O_3.12SiO_2.8H_2O$. Same as alpha-palygorskite. Miramont and elsewhere in France.

Lassolatite. **Ab. MM 16, 363 (No. 77).**

A fibrous, silky variety of opal. Identical with fiorite. Puy de Lassolas, France.

Laurelite. **CA 1, 403.**

"All those granular to fibrous or radiating masses composed of anthophyllite and olivine." From the corundum deposits of Georgia.

Lausenite. **AM 13, 594 (Dec. 1928). Ab. MM 22, 622 (No. 134).**

Name given to replace rogersite (from Jerome, Arizona) which was preoccupied.

Lawsonite. **Ap. I, 41; II, 62; III, 45. DT 633. Ab. MM 11, 157 (No. 51); 11, 330 (No. 53).**

Orthorhombic. Prismatic or tabular crystals. Colorless, grayish blue. H 7–8.25. G 3.084–3.091. A basic silicate of aluminum and calcium. $H_4CaAl_2Si_2O_{10}$. Tiburon peninsula and several other California localities; Italy; France; Corsica; New Caledonia; Cuba; etc.

Lazur-oligoclase. **Ap. II, 62. Ab. MM 12, 386 (No. 58).**

"Lasur-feldspath" from Lake Baikal, Siberia, is shown to have the crystal elements of oligoclase.

Lechatelierite. **DT 474. AM 13, 76 (Mar. 1928). Ab. MM 17, 353 (No. 82). MA 1, 148.**

"Naturally occurring silica glass." Amorphous. The chief constituent of fulgurites and of the fused sandstone of Meteor Crater, near Winslow, Arizona, and elsewhere.

Ledouxite. **Ap. II, 62. DT 415. Ab. MM 13, 370 (No. 62).**

A variety of domeykite from the Mohawk mine, Keweenaw County, Michigan supposed to be $(Cu,Ni,Co)_4As$, but proved to be a mixture.

Leesbergite. **Ap. II, 62. Ab. MM 15, 424 (No. 72). CA 2, 2769 and 3043; 5, 1050.**

Chalky. White. A mixture of hydromagnesite with calcite or dolomite. Originally supposed to be a hydrous carbonate of calcium and magnesium, $Mg_2Ca(CO_3)_3$. Hayingen, Lorraine.

Lefkasbestos. **Ap. III, 45. Ab. MM 16, 363 (No. 77).**

A white (bleached) variety of chrysotile asbestos. Mt. Troodos, Cyprus.

Legrandite. **Ab. AM 17, 455 (Sept. 1932); 18, 79 (Feb. 1933). MM 23, 175–178 (No. 138). Ab. MM 23, 632 (No. 146). CA 26, 5516.**

Monoclinic. Massive, radiating prismatic. Yellow to nearly colorless. G 4.01. A basic hydrous arsenate of zinc. $Zn_{14}(AsO_4)_9OH.12H_2O$. Lampazos, Nuevo Leon, Mexico.

Lehiite. **DT 734. AM 15, 329 (Aug. 1930). MA 4, 344. Ab. MM 22, 622 (No. 134). CA 25, 1769.**

Monoclinic (?). Crust of coarse fibers. White. H 5.5. G 2.89. A hydrous phosphate of calcium, sodium, potassium, and aluminum. $5CaO.(Na,K)_2O.4Al_2O_3.4P_2O_5.12H_2O$. Near Fairfield, Utah.

Lehnerite. **DT 731. AM 10, 428 (Nov. 1925). Ab. AM 11, 44 (Feb. 1926). MA 2, 417; 3, 10 and 274. Ab. MM 20, 459 (No. 110). CA 19, 2795; 20, 1373.**

Monoclinic. Prismatic crystals, or grains. Apple-green. H 3.5. G 3.19. A basic hydrous phosphate of iron. $Fe_7(OH)_2(PO_4)_4.5H_2O$. Near to or identical with ludlamite. Hagendorf, Bavaria, Germany.

Leifite. **DT 535. Ab. AM 2, 27 (Feb. 1927). AM 22, 366 (May 1937). Ab. MM 18, 382 (No. 87). MA 1, 123; 3, 434. CA 11, 2651.**

Hexagonal. Prisms. Colorless. H 6. G 2.575. A highly acidic fluo-silicate of sodium and aluminum. $Na_4(AlF)_2Si_9O_{22}$. Narsarsuk, Greenland.

Leightonite. **AM 23, 34–45 (Jan. 1938). MA 7, 59. CA 32, 3304.**

Triclinic, pseudo-orthorhombic. Crystals mostly lath-shaped and curved. Pale blue. H 3. G 2.95. A hydrous sulfate of copper, calcium, and potassium. $CuO.2CaO.K_2O.4SO_3.2H_2O$. Chuquicamata, Chile.

Lembergite. **Ap. I, 42. Ab. MM 11, 330 (No. 53).**

Orthorhombic. An artificial hydrous sodium-aluminum silicate. $4Na_2Al_2Si_2O_8.5H_2O$.

Lenad. **Ab. MM 15, 424 (No. 72).**

A contracted form of the names leucite and nephelite, suggested by Cross and others as an alternative group name for the feldspathoid minerals.

Lengenbachite. **Ap. II, 62. DT 454. MM 14, 78–80 (No. 64); 14, 204–206 (No. 66). Ab. MM 14, 401 (No. 67).**

Probably triclinic. Thin blade-shaped crystals. Steel-gray, often iridescent. Soft. G 5.80. A sulfarsenite of lead, with small amounts of silver, copper, and antimony. Possibly $6PbS.(Ag,Cu)_2S.2As_2S_3$. Binnenthal, Switzerland.

Leonite. **Ap. I, 42; II, 63. DT 763. Ab. MM 11, 330 (No. 53).**

Monoclinic. Tabular crystals and massive. Colorless, white, yellowish. H 3. G 2.25. A hydrous sulfate of magnesium and potassium. $K_2SO_4.MgSO_4.4H_2O$. Westeregeln and Leopoldshall, Germany.

Lepidolamprite. **Ab. MM 14, 402 (No. 67).**

Same as franckeite.

Lessingite. **DT 634. Ab. AM 15, 242 (June 1930). MA 4, 150. Ab. MM 22, 622 (No. 134). CA 24, 4243.**

Rolled pebbles. Cherry-red to reddish yellow and greenish. H 4.5. G 4.694. A hydrous silicate of cerium and calcium. $H_2Ca_2Ce_4Si_3O_{15}$. Near Kyshtym, Urals.

Letovicite. **Ab. AM 18, 180 (Apr. 1933). MA 5, 145; 6, 357. Ab. MM 23, 633 (No. 146). CA 26, 5516.**

Pseudohexagonal. Tabular crystals. Colorless. G 1.81. An acid sulfate of ammonium. $H(NH_4)_3(SO_4)_2$. Letovice, Moravia, Czechoslovakia.

Leucoglaucite. **Ab. AM 19, 287 (June 1934); 21, 271 (Apr. 1936). MA 5, 390; 6, 149. CA 28, 729.**

Hexagonal. Prismatic. Very pale bluish green. A hydrous ferric sulfate. $Fe_2O_3.4SO_3.5H_2O$. Tierra Amarilla, Chile.

Leucophoenicite. **Ap. II, 63; III, 45. DT 631 AM 14, 1–18 (Jan. 1929). Ab. MM 12, 316 (No. 57); 12, 386 (No. 58).**

Monoclinic. Elongated crystals; granular massive. Light purplish red. H 5.5–6. G 3.848. A basic silicate chiefly of

manganese, with zinc and calcium. $(Mn,Zn,Ca)_7(SiO_4)_3(OH)_2$. Franklin, New Jersey.

Leucophosphite. Ab. AM 17, 495 (Oct. 1932). MA 5, 148. Ab. MM 23, 633 (No. 146). CA 27, 1297.

Chalky masses. White. G 2.30–2.65. A hydrous phosphate of potassium, iron, and aluminum. $K_2(Fe,Al)_7(OH)_{11}(PO_4)_4.6H_2O$. Ninghanboun Hills, S.W., Western Australia.

Leucosphenite. Ap. II, 64. DT 691. Ab. MM 12, 386 (No. 58).

Monoclinic. In minute tabular, prismatic crystals with wedge-shaped terminations. White, inclining to grayish blue. H 6.5. G 3.05. A titano-silicate of sodium and barium. $Na_4Ba(TiO)_2(Si_2O_5)_5$. Also spelled leukosphenite. Narsarsuk, Greenland.

Lewisite. Ap. I, 42. DT 738. MM 11, 80–88 (No. 50). Ab. MM 11, 330 (No. 53).

Isometric. Minute octahedrons. Honey-yellow to brown. H 5.5. G 4.95. A titano-antimonate of calcium. $5CaO.2TiO_2.3Sb_2O_5$. Tripuhy, Ouro Preto, Minas Geraes, Brazil.

Lewistonite. DT 734. AM 15, 326 (Aug. 1930). Ab. MM 22, 623 (No. 134). MA 4, 344. CA 25, 1769.

Hexagonal. Minute prisms or powdery crusts. White. H 5. G 3.06. A hydrous phosphate of calcium, potassium, and sodium. $15CaO.(K,Na)_2O.4P_2O_5.8H_2O$. Near Fairfield, Utah.

Liardite. CA 8, 2328.

Pure, amorphous silica, SiO_2.

Libollite. Ap. I, 43. Ab. MM 12, 386 (No. 58).

An asphaltum resembling albertite. Pitch-black. H 2.5. G 1.1. C 80.30, H 8.41, O 9.45, N 1.84 = 100. Libollo, Portuguese West Africa.

Lime-olivine. MA 2, 77. Ab. MM 21, 569 (No. 122).

Calcium orthosilicate. Ca_2SiO_4. Same as shannonite. Tasmania.

Limonitogelite. CA 8, 1074.

A colloidal form of limonite.

Limonogelite. CA 8, 1074.

A colloidal form of limonite.

Lindesite. Ap. I, 43. Ab. MM 11, 105 (No. 50); 11, 168 (No. 51); 11, 330 (No. 53).

Same as urbanite.

Lindgrenite. AM 20, 187 (Mar. 1935); 20, 484–491 (July 1935). MA 6, 54 and 147. CA 29, 7876.

Monoclinic. Tabular crystals. Green. H 4.5. G 4.26. A basic molybdate of copper. $2CuMoO_4.Cu(OH)_2$. Chuquicamata, Chile.

Lindströmite. DT 446. Ab. AM 10, 157 (June 1925). MA 2, 340. Ab. MM 20, 459 (No. 110). CA 18, 2860.

Monoclinic (?). Striated, prismatic crystals. Lead-gray to tin-white. H 3–3.5. G 7.01. Sulfobismuthite of lead and copper. $2PbS.Cu_2S.3Bi_2S_3$. Gladhammar, Sweden.

Linneite. AM 9, 61 (Mar. 1924); 21, 189 (Mar. 1936).

Preferred spelling for linnaeite, DS No. 79.

Linosite. Ap. II, 4. Ab. MM 15, 424 (No. 72). CA 2, 3217.

A highly titaniferous basaltic hornblende, closely allied to kaersutite, found as loose, monoclinic crystals on the Island of Linosa, off the coast of Tunisia.

Liparite. Ab. MM 22, 623 (No. 134).

This well-known rock name was earlier applied to three distinct mineral species: chrysocolla, fluorite, and talc.

Lithargite. AM 6, 14 (Jan. 1921). Ab. MM 18, 382 (No. 87). MA 1, 120. CA 11, 567.

Wherry's name for litharge.

Lithio-ferro-triphylite. MA 2, 471.

Same as triphylite.

Lithio-mangano-triphylite. MA 2, 471.

Same as lithiophilite.

Lithium-amphibole. AM 15, 292 (Aug. 1930). Ab. MM 22, 623 (No. 134). MA 4, 526.

An amphibole, such as holmquistite, containing the molecule $Li_2(Mg,Fe)_3Al_2Si_8O_{22}(OH)_2$.

Lithium-spinel. MA 6, 330.

An artificial aluminate of lithium. $LiAl_5O_8$.

Liveingite. **Ap. II, 64. DT 447. Ab. MM 13, 206 (No. 60); 13, 370 (No. 62).**

Monoclinic. In crystals resembling other minerals of similar composition. A sulfarsenite of lead. $5PbS.4As_2S_3$. Binnenthal, Switzerland.

Loaisite. **Ap. II, 65. Ab. MM 15, 424 (No. 72). CA 2, 1544.**

"Scorodite in very pale green, porous masses, from Loaysa, Colombia." See DS, 5th ed., 1868.

Loellingite. **AM 9, 61 (Mar. 1924); 21, 189 (Mar. 1936).**

Preferred spelling for löllingite, DS No. 97.

Loewigite. **AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).**

Preferred spelling for löwigite, DS No. 802.

Loewite. **AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).**

Preferred spelling for löweite, DS No. 757.

Lohestite. **Ab. AM 13, 593 (Dec. 1928). MA 3, 11. Ab. MM 21, 569 (No. 122). CA 23, 1081.**

"A nearly amorphous substance occurring in knots in the metamorphic rocks of the Stavelot district, represents a stage in the formation of andalusite." Foshag. The Ardennes, Belgium.

Loparite. **DT 692. Ab. AM 11, 294, 297 (Nov. 1926); 12, 97 (Mar. 1927). MA 2, 264; 3, 236 and 275. Ab. MM 20, 459 (No. 110). CA 21, 3862.**

Pseudoisometric. Cubic twins. Black. H 5.5. G 4.77. A titanate chiefly of cerium, calcium, and sodium. $11Ce(TiO_3)_2.6(Di,La,Y)_2(TiO_3)_3.6CaTiO_3.9(Na,K)TiO_3$. A member of the perovskite group. Kola Peninsula, Russian Lapland.

Lopezite. **AM 22, 929 (Aug. 1937). MA 7, 13.**

Minute crystals and balls. Orange-red. Potassium dichromate. $K_2Cr_2O_7$. Tocopilla and Iquique, Chile.

Lorandite. **Ap. I, 43. DT 447. MM 11, 32 (No. 49). Ab. MM 11, 168 (No. 51); 11, 330 (No. 53).**

Monoclinic. Tabular or prismatic crystals. Cochineal to carmine-red, dark lead-gray. H 2–2.5. G 5.529. A sulfarsenite of thallium. $Tl_2S.As_2S_3$. (Thallium, 59.51 %). Occurs on realgar. Allchar, Macedonia; Rambler mine, Wyoming.

Loranskite. **Ap. II, 65; III, 46. DT 698. Ab. MM 12, 386 (No. 58).** Massive. Black. H 5. G 4.6. A tantalate of yttrium, cerium, zirconium, calcium, and iron. A euxenite-like mineral. Impilax, Finland.

Lorenzenite. **Ap. II, 65. DT 692. Ab. MM 12, 386 (No. 58).** Orthorhombic. Small, acicular crystals. Colorless, or with violet or brown tinge. H 6–6.25. G 3.42. A silico-titanate and zirconate of sodium. $Na_2O.2(Ti,Zr)O_2.2SiO_2$. Narsarsuk, Greenland.

Lorettoite. **DT 468. Ab. AM 2, 26 (Feb. 1917). Ab. MM 18, 382 (No. 87). MA 1, 120. CA 11, 131.** Tetragonal (?). Bladed masses. Honey-yellow. H about 3. G 7.65. Oxychloride of lead. $6PbO.PbCl_2$. Loretto, Tennessee.

Loseyite. **DT 529. Ab. AM 14, 103 (Mar. 1929). AM 14, 150–153 (Apr. 1929). MA 4, 151. Ab. MM 22, 623 (No. 134). CA 23, 3642.** Monoclinic. Small lath-shaped crystals in radiating bundles. Bluish white. H about 3. G 3.27. A basic carbonate of manganese and zinc with a little magnesium. $7RO.2CO_2.5H_2O$, where R = Mn″:Zn:Mg = 5:4:1. Franklin, New Jersey.

Losite. **Ap. III, 46. Ab. MM 16, 363 (No. 77).** An undetermined mineral detected in thin sections of the nepheline-syenite of the Los Islands, west coast of Africa. It is optically uniaxial and possibly related to cancrinite.

Lossenite. **Ap. I, 44. DT 738. Ab. MM 11, 106 (No. 50); 11, 330 (No. 53). CA 10, 1312.** Orthorhombic. Pyramidal crystals. Brownish red. H 3–4. A hydrous arsenate and sulfate of ferric iron and lead. $2PbSO_4.6(FeOH)_3As_2O_8.27H_2O$. Probably identical with beudantite. Laurium, Greece.

Lotrite. **Ap. II, 65. DT 641. Ab. MM 13, 371 (No. 62).** Monoclinic (?). In aggregates of small grains or leaves. Green. H 7.5. G 3.23. A hydrous silicate of aluminum, iron, calcium, and magnesium. $3(Ca,Mg)O.2(Al,Fe)_2O_3.4SiO_2.2H_2O$. Lotru Valley, Transylvania, Rumania

Louderbackite. DT 765. AM 13, 220 (June 1928). MA 4, 11. Ab. MM 21, 569 (No. 122).

Orthorhombic. Crystalline crusts. Pale chestnut-brown. H 2.5–3. G 2.185. A hydrous sulfate of iron and aluminum. $2FeO.3(Fe,Al)_2O_3.10SO_3.35H_2O$. Jerome, Arizona.

Lovchorrite. Ab. AM 15, 203 (May 1930). MA 3, 236 and 275. Ab. MM 21, 569 (No. 122). MA 6, 341–343.

Amorphous or crystalline. Brown. H 5. G 3.35. A titano-fluo-silicate of calcium, sodium, and the cerium and yttrium earths. $(Ce,Y)_4(Ti_2O_6)_3.10Ca_2Si_2O_6.10–11NaF$. "A colloidal, glassy variety of rinkolite." Mt. Yukspor, Kola Peninsula, Russian Lapland.

Lovtchorrite. CA 21, 3584.

Same as lovchorrite.

Lubeckite. DT 510. Ab. AM 9, 39 (Feb. 1924). MA 2, 52. Ab. MM 20, 459 (No. 110). CA 17, 3658.

Colloidal. Small spherules. Black. H 2–3. G 4.8. A wad-like mineral. A hydrous oxide of copper, cobalt, and manganese. $4CuO.\frac{1}{2}Co_2O_3.Mn_2O_3.4H_2O$. Miedzianka, Poland.

Lublinite. Ap. III, 46. DT 514. Ab. MM 15, 424 (No. 72); 16, 364 (No. 77). MA 4, 334. CA 3, 997; 9, 576.

A fibrous, crystalline variety of calcite, originally supposed to be a new form of $CaCO_3$, but shown by X-ray analysis to be identical with calcite. Government of Lublin, Poland.

Lubumbashite. MA 6, 52.

Colloidal hydroxide of cobalt (and copper), earlier compared with heterogenite, MA 1, 243. Katanga, Belgian Congo.

Lucianite. DT 678. Ab. AM 5, 18 (Jan. 1920). Ab. MM 18, 382 (No. 87). MA 1, 255.

Colloidal. Dark gray. G 2.25. A peculiar clay which swells up to many times its original volume when immersed in water. Mainly a hydrated magnesium silicate. Santa Lucia, near City of Mexico, Mexico.

Lucinite. Ap. III, 46. DT 724. Ab. MM 17, 354 (No. 82); 20, 461 (No. 110). MA 1, 258; 2, 421. CA 10, 2083.

Described as a new species, but later shown to be identical with variscite. Lucin, Utah.

Lueneburgite. **AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).**
Preferred spelling for lüneburgite, DS No. 682.

Luigite. **Ap. III, 47. DT 639. Ab. MM 15, 425 (No. 72).**
Same as aloisiite.

Lusakite. **Ab. AM 19, 390 (Aug. 1934); 20, 316 (Apr. 1935). MM 23, 598–606 (No. 146). CA 28, 7206.**
Orthorhombic. Tabular crystals. Black to cobalt-blue. H 7.5. G 3.767. A cobalt-bearing variety of staurolite. A basic silicate of iron, aluminum, cobalt, nickel, and magnesium. $H_2O.4(Fe,Co,Ni,Mg)O.9(Al,Fe)_2O_3.8SiO_2$. Lusaka, Northern Rhodesia.

Lusitanite. **AM 5, 16 (Jan. 1920). Ab. MM 18, 382 (No. 87).**
Same as spencerite.

Lutécine. **Ap. I, 44. Ab. MM 12, 387 (No. 58).**
The elements that build up the groupings called lutécite.

Lutécite. **Ap. I, 44. DT 473. Ab. MM 10, 256 (No. 47); 11, 331 (No. 53).**
A fibrous form of silica (chalcedony), having the fibers perpendicular to the *c* axis, opposite to the usual orientation of chalcedony fibers.

Lyndochite. **DT 698. AM 12, 212–218 (May 1927); 15, 441 (Sept. 1930). MA 3, 366. Ab. MM 21, 570 (No. 122). CA 22, 2905.**
Orthorhombic. Rough crystals. Black. H 6.5. G 4.909. Essentially a thorium-calcium euxenite, with uranium only a minor constituent. Lyndoch Township, Ontario, Canada.

Lyonite. **Ab. MM 17, 354 (No. 82).**
Same as chillagite.

M

Macgovernite.
Same as McGovernite.

Mackensite. **DT 673. Ab. AM 4, 61 (May 1919). Ab. MM 18, 383 (No. 87).**
Monoclinic. Compact masses, composed of minute needles. Iron-black to greenish black. H 3. G 4.89. A hydrous silicate of iron. $Fe_2O_3.SiO_2.2H_2O$. "Approximates the end

member of the thuringite series." Northern Moravia and southern Silesia.

Mackintoshite. Ap. I, 44. DT 620. Ab. MM 10, 341 (No. 48).

Tetragonal. Commonly massive. Black. H 5.5. G 5.438. A silicate of uranium, thorium, cerium, etc., containing water. Perhaps $UO_2.3ThO_2.3SiO_2.3H_2O$. Llano County, Texas. Compare maitlandite.

Macrolepidolite. Ab. MM 13, 371 (No. 62).

A variety of lepidolite distinguished from microlepidolite by its large optic axial angle.

Madisonite. Ab. MM 23, 633 (No. 146).

A silicate of calcium, magnesium, and aluminum. $2CaO.2MgO.Al_2O_3.3SiO_2$. A constituent of iron blast-furnace slags.

Mafite. Ab. MM 20, 460 (No. 110).

A term that includes not only the mafic (ferromagnesian) minerals but also some other dark-colored rock-forming minerals.

Magallanite. Ab. AM 23, 293 (Apr. 1938).

Rolled pebbles. An asphaltic substance. Near Magallanes, Argentina.

Maganthophyllite. Ab. MM 23, 633 (No. 146).

A contraction of magnesioanthophyllite.

Maghemite. Ab. AM 14, 387 (Oct. 1929); 16, 270 (June 1931). MA 4, 215. Ab. MM 22, 624 (No. 134).

"A strongly magnetic form of Fe_2O_3, that, except for the color of its streak, has all the properties of ordinary hematite." "Upper part of the Bushveld igneous complex," South Africa. Walker (MA 4, 348) applies this name to a magnetic mixture of sesquioxides of iron and titanium from the Bushveld, $(Fe,Ti)_2O_3$. Winchell (MA 4, 502) prefers the name oxymagnite.

Magnalite. Ab. AM 8, 188 (Oct. 1928). MA 2, 54. Ab. MM 20, 460 (No. 110).

A clay resembling cerolite or bole. Dull green to greenish white. G 2.34. Apparently a mixture of bauxite, halloysite, and cerolite with some $CaCO_3$. It is an alteration product of basalt. Oberpfalz, Bavaria, Germany.

Magnesia-blythite. Ab. MM 21, 570 (No. 122).

Same as magnesioblythite.

Magnesia-cordierite. **Ab. MM 24, 616 (No. 158). MA 6, 479.**
Iron-free cordierite, $H_2Mg_4Al_8Si_{10}O_{37}$, as distinct from iron cordierite, $H_2Fe_4Al_8Si_{10}O_{37}$.

Magnesioanthophyllite. **Ab. AM 6, 174 (Dec. 1921). Ab. MM 19, 344 (No. 98). MA 1, 253.**
Orthorhombic. A magnesium silicate. Theoretically $MgSiO_3$ or $(Mg,H_2)O.SiO_2$. The magnesium end member of the anthophyllite series, complementary to ferroanthophyllite.

Magnesioblythite. **Ab. AM 13, 33 (Jan. 1928). Ab. MM 21, 570 (No. 122).**
Blythite garnet containing 5.40% MgO. Nagpur, India.

Magnesiochromite. **DT 488. Ab. MM 16, 364 (No. 77).**
A variety of chromite containing magnesium. $(Fe,Mg)Cr_2O_4$. Identical with magnochromite, DS p. 228. Classified by Ford as a spinel.

Magnesio-cronstedtite. **Ab. AM 15, 202 (May 1930). MA 3, 373. Ab. MM 21, 570 (No. 122).**
"Name given to the hypothetical molecule, $H_4Mg_2Fe'''_2SiO_9$, corresponding with cronstedtite."

Magnesiodolomite. **MM 24, 616 (No. 158).**
A variety of dolomite with formula $CaMg(CO_3)_2$.

Magnesiohastingsite. **DT 578. AM 13, 287–296 (July 1928). MA 4, 39. Ab. MM 22, 619 (No. 134).**
A variety of hastingsite rich in magnesia. Iron Hill, Colorado; Montreal, Canada; etc.

Magnesioludwigite. **DT 741. Ab. AM 2, 68 (May 1917). Ab. MM 18, 383 (No. 87). MA 1, 119. CA 11, 433.**
Orthorhombic. Finely fibrous masses. "An ivy-green type, representing the magnesium end-member of the ludwigite group." $MgO.Fe_2O_3.3MgO.B_2O_3$. Near Brighton and elsewhere in Utah.

Magnesioscheelite. **Ab. MM 17, 354 (No. 82).**
A hypothetical magnesium tungstate, isomorphous with scheelite. $MgWO_4$.

Magnesiosussexite. **AM 17, 509–513 (Nov. 1932). MA 5, 201. Ab. MM 23, 633 (No. 146). CA 27, 2653.**
Orthorhombic (?). Fibrous veins. Straw-yellow to buff. H 3. G 2.83. A hydrous borate of magnesium and manganese.

$2(Mg,Mn)O.B_2O_3.H_2O$. Between sussexite and camsellite. Eureka mine, Gogebic range, Michigan.

Magnesio-wüstite. **Ab. MM 24, 616 (No. 158). MA 6, 352.**
Solid solutions of MgO and FeO in varying proportions are termed magnesio-wüstites.

Magnesium-apjohnite. **MA 7, 12.**
Same as bushmanite = bosjemanite, DS p. 955. Terlano, Trentino, Italy.

Magnesium-axinite. **Ab. MM 15, 425 (No. 72).**
A hypothetical axinite with the composition $HMgCa_2BAl_2Si_4O_{16}$.

Magnesium-berzeliite. **Ab. MM 24, 616 (No. 158). MA 6, 183.**
A variety of berzelite in which manganese is largely replaced by magnesium. Typically $(Ca,Na)_3Mg_2(AsO_4)_3$.

Magnesium-chlorophoenicite. **Ab. MM 24, 616 (No. 158). MA 6, 261.**
Monoclinic. A basic arsenate of magnesium and manganese. $(Mg,Mn)_2As_2O_8.7(Mg,Mn)(OH)_2$. Franklin, New Jersey.

Magnesium-diopside. **Ab. MM 14, 402 (No. 67).**
A monoclinic pyroxene, near to diopside, but containing only 8–9% CaO.

Magnesium-monticellite. **Ab. MM 24, 613 (No. 158).**
Typical monticellite, $Ca_2SiO_4.Mg_2SiO_4$, in distinction from iron or mangan-monticellite, in which iron or manganese replaces the magnesium.

Magnesium-orthite. **Ab. AM 15, 202 (May 1930). MA 3, 273. Ab. MM 21, 570 (No. 122).**
"A variety of allanite (orthite) containing much magnesia and fluorine perhaps present as the group MgF_2." Norberg, Sweden.

Magnesium-pectolite. **Ap. II, 66. Ab. MM 15, 425 (No. 72). CA 2, 772.**
Pectolite containing some magnesium (MgO, 5.54%) from Burg, near Herborn, Hesse-Nassau, Germany.

Magnesium-zinc spinel. **MM 24, 616 (No. 158). CA 31, 7799.**
Same as gahnospinel.

Magnetoilmenite. **Ab. AM 15, 203 (May 1930). Ab. MM 21, 570 (No. 122).**

"Hexagonal mixed crystals of ilmenite with magnetite."

Magnetoplumbite. **DT 495. Ab. AM 11, 217 (Aug. 1926). MA 3, 5. Ab. MM 21, 570 (No. 122). CA 20, 1194; 32, 1616.**

Hexagonal. Acute, pyramidal crystals. Black. H about 6. G 5.517. A double oxide of ferric iron with lead and manganese and some titanium, etc. $2(Pb,Mn)O.3Fe_2O_3$. Related to plumboferrite, but differs in being strongly magnetic. Langban, Sweden.

Magnetostibian. **Ap. I, 44. Ab. MM 11, 331 (No. 53).**

Grains. Black. An antimonate of manganese and iron. Sjö mine, Örebro, Sweden.

Magnoferrichromite. **Ab. MM 24, 601 (No. 158). CA 32, 885.**

A hypothetical member of the spinel group. A chromate and ferrate of iron and magnesium. $(Fe,Mg)(Cr,Fe)_2O_4$.

Magnofranklinite. **Ap. I, 44. Ab. MM 11, 331 (No. 53).**

A local name for franklinite from Sterling Hill, Ogdensburg, New Jersey, which contains but little zinc and is highly magnetic.

Maitlandite. **DT 620. Ab. AM 16, 472 (Oct. 1931). MA 4, 346. Ab. MM 22, 624 (No. 134). CA 26, 2944.**

Amorphous. Black. G 4.31–4.45. A hydrous silicate of lead, calcium, thorium, and uranium. $2(Pb,Ca)O.3ThO_2.4UO_2.8SiO_2.23H_2O$. Differs from mackintoshite, to which it had been previously referred, in containing some lead and calcium. Wodgina, Western Australia.

Makensenite. **Ab. MM 19, 344 (No. 98).**

Same as mackensite.

Makensite. **AM 8, 186 (Oct. 1923). MA 1, 255. Ab. MM 19, 255 (No. 98).**

Same as mackensite.

Malladrite. **DT 466. Ab. AM 12, 379 (Oct. 1927). MA 3, 238. Ab. MM 21, 570 (No. 122). CA 21, 369.**

Hexagonal. Minute prisms. A silico-fluoride of sodium. Na_2SiF_6. Not to be confused with mallardite, DS No. 752. Vesuvius, Italy.

Maltesite. **Ap. I, 44. Ab. MM 11, 331 (No. 53).**
A variety of andalusite, resembling chiastolite, showing a maltese cross of pure material separated by areas of impure material. North of Ladoga Lake, Finland.

Malthite. **Ab. MM 15, 425 (No. 72).**
A group name to include the viscous, bituminous hydrocarbons, known as maltha.

Manandonite. **Ap. III, 47. DT 663. Ab. MM 16, 364 (No. 77) CA 7, 2369.**
Orthorhombic (?). Micaceous, six-sided scales. White. G 2.89. A basic boro-silicate of lithium and aluminum. $H_{24}Li_4Al_{14}B_4Si_6O_{53}$. Manandona river, Madagascar.

Manganalmandine. **AM 5, 16 (Jan. 1920). Ab. MM 18, 383 (No. 87).**
A manganiferous garnet intermediate between almandine and spessartite.

Mangan-almandite. **Ab. AM 13, 33 (Jan. 1928). Ab. MM 21, 571 (No. 122). MA 1, 253.**
Manganiferous almandite garnet. India.

Manganandalusite. **Ap. I, 45. DT 615. Ab. MM 11, 331 (No. 53).**
A variety of andalusite containing 6.91% Mn_2O_3. Differs from ordinary andalusite in its grass-green color and strong pleochroism. Vestanå, Sweden.

Manganankerite. **Ab. MM 24, 617 (No. 158).**
Pink ankerite containing 8.60% MnO. Japan.

Manganaxinite. **AM 7, 202 (Nov. 1922); 14, 1–18 (Jan. 1929). MA 1, 4.**
A manganiferous axinite. $2Al_2O_3.4(Ca,Mn)O.B_2O_3.H_2O.8SiO_2$. Franklin, New Jersey.

Mangan-berzeliite. **Ap. I, 45. Ab. MM 12, 387 (No. 58); 24, 616 (No. 158). MA 6, 183.**
A variety of berzelite in which magnesium is largely replaced by manganese. Typically $(Ca,Na)_3Mn_2(AsO_4)_3$. Originally called pyrrharsenite. Langban, Sweden.

Manganchlorite. **Ab. MM 21, 571 (No. 122). CA 22, 744.**
Same as manganpennine.

Mangandiaspore. DT 503. Ab. AM 14, 439 (Nov. 1929). MA 4, 148. Ab. MM 22, 624 (No. 134).

Orthorhombic. Bladed crystals. Rose to dark red. A variety of diaspore containing some manganese (Mn_2O_3, 4.32%). Postmasburg, South Africa.

Mangandolomite. Ab. MM 20, 460 (No. 110); 24, 616 (No. 158).

A variety of dolomite in which magnesium is replaced by manganese. $CaMn(CO_3)_2$.

Manganese-chalcanthite. Ab. AM 7, 75 (Apr. 1922). Ab. MM 19, 344 (No. 98).

Triclinic. Pale pink. Chalcanthite with manganese replacing copper. Artificial.

Manganese fayalite. CA 2, 3220.

A variety of fayalite containing 7.63% MnO. Same as mangan-fayalite, DT 600. Agram Mts., Tunaberg, Sweden.

Manganese-pennine. Ab. MM 22, 624 (No. 134).

A variety of pennine containing some manganese (MnO, 1%). Langban, Sweden.

Manganese-sicklerite. Ab. AM 22, 876 (July 1937).

Name "applied to the manganese sicklerite derived from lithiophilite." Varuträsk, near Boliden, Sweden.

Manganese-zoisite. Ab. MM 24, 617 (No. 158). MA 6, 437.

Radial aggregates. Bright pink. H 6–6.5. G 3.22. A variety of zoisite containing 0.47% MnO. Borzovka, Urals.

Manganfayalite. DT 600. Ab. AM 4, 77 (June 1919). Ab. MM 18 383 (No. 87). MA 1, 252. CA 13, 1197.

A member of the olivine group between fayalite and knebelite. Contains 5.–26.5% MnO. Tunaberg, Sweden.

Manganglauconite. Ab. MM 12, 387 (No. 58).

Same as marsjatskite.

Mangan-grandite. Ab. AM 13, 33 (Jan. 1928). Ab. MM 15, 425 (No. 72); 21, 571 (No. 122).

A manganiferous grandite garnet, intermediate between grossularite and andradite.

Manganiferous chlorite. Ab. MM 21, 571 (No. 122).

Same as manganpennine.

Manganilmenite. **Ab. AM 20, 403 (May 1935). MA 4, 314. Ab. MM 22, 624 (No. 134).**

Pebbles. Brownish black. G 4.63.

A manganese-bearing ilmenite (MnO, 14.40%). Western Australia.

Manganipurpurite. **Ab. MM 15, 425 (No. 72).**

The manganese end member of the purpurite series. A hydrous manganic phosphate. $2MnPO_4.H_2O$.

Mangan-monticellite. **Ab. MM 24, 613 (No. 158).**

A type of monticellite in which manganese replaces magnesium. An orthosilicate of calcium and manganese. $Ca_2SiO_4.Mn_2SiO_4$.

Mangan-muscovite. **Ab. MM 23, 634 (No. 146).**

A compact, fine, scaly, manganiferous variety of muscovite of a deep violet color. Contains 2.30% MnO. Kimito, Finland.

Mangan-neptunite. **DT 691. AM 11, 294 (Nov. 1926). Ab. AM 12, 96 (Mar. 1927). MA 2, 264. Ab. MM 20, 460 (No. 110). CA 22, 4412.**

Dark red crystals. "A variety of neptunite with Fe:Mn = 1:2." Kola Peninsula, Russian Lapland.

Mangano-anthophyllite. **AM 17, 4 and 17 (Jan. 1932). MA 5, 51. Ab. MM 23, 633 (No. 146).**

A fibrous alteration product of rhodonite. Bald Knob, North Carolina.

Manganoaxinite. **Ap. II, 11. Ab. MM 15, 425 (No. 72).**

Axinite consists of isomorphous mixtures of ferroaxinite and manganoaxinite, the latter being $8SiO_2.2Al_2O_3.2MnO.H_2O.4CaO.B_2O_3$.

Manganobrucite. **Ap. III, 15. Ab. MM 16, 364 (No. 77).**

A variety of brucite containing manganese. Identical with manganbrucite, DS p. 252.

Manganoferrite. **AM 8, 186 (Oct. 1923). Ab. MM 19, 344 and 351 (No. 98).**

Same as jacobsite.

Manganolangbeinite. **DT 748. Ab. AM 11, 107 (Apr. 1926). MA 2, 383. Ab. MM 20, 460 (No. 110). CA 19, 1676.**

Isometric. Small tetrahedrons. Rose-red. G 3.02. A sulfate of manganese and potassium. $K_2Mn_2(SO_4)_3$. Vesuvius, Italy.

Manganomelane. Ab. MM 24, 617 (No. 158). MA 6, 53.
A group name for gel forms of MnO_2, including psilomelane, wad, etc.

Manganomossite. Ab. AM 12, 98 (Mar. 1927). Ab. MM 20, 460 (No. 110).
A pebble. G 6.21. A tantalo-niobate of manganese and iron. Western Australia.

Manganospharite. Ap. II, 66.
Same as manganospherite.

Manganospherite. Ap. II, 66. DT 519. Ab. MM 13, 371 (No. 62).
Botryoidal aggregates, resembling spherosiderite, but having the composition of oligonite, from which it differs only in form. Brown, tinged red. H 4.5–5. G 3.630. A carbonate of iron and manganese. $3FeCO_3.2MnCO_3$. Horhausen, Rhenish Prussia, Germany.

Manganostibite. AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).
Preferred spelling for manganostibiite, DS No. 583.

Manganpennine. Ab. MM 21, 571 (No. 122). MA 3, 474.
Same as manganese-pennine.

Mangan-pickeringite. Mangan-pickingerite. MA 7, 12.
A mixture of minerals of the halotrichite group. Terlano, Trentino, Italy.

Manganspinel. AM 17, 16 (Jan. 1932). Ab. MM 19, 344 (No. 98).
A furnace product identical with galaxite. A member of the spinel group. $MnAl_2O_4$.

Manganvoelckerite. MA 7, 10. CA 32, 2057.
A pale blue variety of apatite in which CaF_2 is largely replaced by CaO. Sometimes forms a zone around manganapatite, whose color is darker. From the Varuträsk pegmatite, Sweden.

Mangan-wollastonite. Ab. MM 24, 617 (No. 158).
A variety of wollastonite containing manganese (MnO, 7%). Norway.

Mangualdite. Ab. MM 24, 617 (No. 158). MA 6, 441. CA 32, 888.
Orthorhombic (?). Olive-green. G 3.33. A phosphate of manganese and calcium. $3(Mn,Ca)O.P_2O_5$. Mangualde, Portugal.

Manjak. Ab. MM 12, 387 (No. 58).
A local name for asphaltum from Barbados, West Indies.

Mansjoeite. Ab. AM 8, 168 (Sept. 1923). CA 16, 2656.
Same as mansjöite.

Mansjöite. DT 558. Ab. AM 8, 168 (Sept. 1923). Ab. MM 19, 344 (No. 98).
Monoclinic. Granular. Grayish green. G 3.236. A fluorine-bearing pyroxene, largely diopside and hedenbergite. Mansjö Mt., Sweden.

Marahuite. Ab. MM 24, 617 (No. 158). CA 31, 7005.
An earthy, bituminous lignite containing algae and corresponding with boghead coal. Marahu, Bahia, Brazil.

Marahunite. CA 31, 7005.
same as marahuite.

Margarosanite. DT 584. Ab. AM 1, 87 (Nov. 1916); 2, 129 (Oct. 1917). Ab. MM 18, 383 (No. 87). MA 1, 18 and 19. CA 10, 2450.
Triclinic. Prismatic crystals; lamellar or columnar. Colorless or snow-white. H 2.5–3. G 3.991–4.39. A silicate of lead, calcium, and manganese. $Pb(Ca,Mn)_2(SiO_3)_3$. Franklin, New Jersey; Langban, Sweden.

Marignacite. Ap. II, 66. DT 694. Ab. MM 14, 403 (No. 67). CA 1, 1243.
A variety of pyrochlore, differing in containing more cerium and yttrium and less calcium and iron. Wausau, Wisconsin.

Marrite. Ap. II, 66. MM 14, 76–78 (No. 64). Ab. MM 14, 403 (No. 67).
Monoclinic. Minute, roughly cubical crystals. Lead- to steel-gray. H 3. Composition unknown. Binnenthal, Switzerland.

Marshite. Ap. I, 45; II, 67. DT 459. Ab. MM 11, 236 (No. 52); 11, 331 (No. 53). MM 12, 38 (No. 59); 13, 189 (No. 60).
Isometric. Tetrahedral crystals. Reddish oil-brown. H 2.5. G 5.6–5.9. Cuprous iodide. CuI. Broken Hill, New South Wales.

Marsjatskite. Ap. II, 67. DT 680. Ab. MM 12, 387 (No. 58).
Glauconite containing much manganese. Same as manganglauconite. Marsjat Forest, Urals.

Masrite. **Ap. I, 45. Ab. MM 11, 331 (No. 53).**
A fibrous alum, containing a small amount of cobalt and the supposed new element "masrium." Egypt.

Massicotite. **AM 2, 18 and 19 (Feb. 1917). MA 1, 120. CA 11, 567.**
Same as massicot.

Maucherite. **Ap. III, 48. DT 415. Ab. MM 16, 364 (No. 77). CA 7, 2368; 8, 646.**
Tetragonal. Square, tabular crystals. Reddish silver-white, tarnishing to gray copper-red. H 5. G 7.83. A nickel arsenide. Ni_3As_2, or Ni_4As_3. The furnace product, placodine, is identical; also temiskamite. Eisleben, Thuringia.

Maufite. **Ab. AM 15, 275 (July 1930). MA 4, 248. Ab. MM 22, 624 (No. 134). CA 24, 5258.**
Sheaves, fibrous. Emerald-green. H 3. G 2.27. A hydrous silicate of aluminum and nickel with magnesium and iron. $(Mg,Ni,Fe)O.2Al_2O_3.3SiO_2.4H_2O$. Near Umvukwe, Southern Rhodesia.

Mauleonite. **Ab. MM 16, 364 (No. 77).**
A white chlorite identical with the leuchtenbergite variety of clinochlore. Mauleon, Basses-Pyrenées, France.

Mauzeliite. **Ap. I, 45. DT 738. MM 11, 82 (No. 50). Ab. MM 11, 229 (No. 52); 11, 331 (No. 53).**
Isometric. Octahedrons. Dark brown. H 6–6.5. G 5.11. A titano-antimonate of calcium and lead. $4(Ca,Pb)O.2Sb_2O_5.TiO_2$. Related to lewisite, also to pyrochlore. See further under MA 4, 277. Jacobsberg, Sweden.

Maxixe-aquamarine. **Ab. AM 20, 740 (Oct. 1935). MA 5, 295. Ab. MM 24, 617 (No. 158).**
Cobalt-blue. An alkaline gem beryl, with a small boron content. Analysis shows Li_2O, 0.98; Na_2O, 1.28; Cs_2O, 2.80; B_2O_3, 0.39. Maxixe mine, Brazil.

Maxixe-beryl.
Same as maxixe-aquamarine.

Mayaite. **Ab. AM 9, 18 (Jan. 1924). MA 2, 67. Ab. MM 20, 461 (No. 110). CA 17, 1403.**
"A group name for jades composed of solid solutions of tuxtlite and albite in all proportions." Mexico and Guatemala.

Mayberyite. **Ap. II, 67. Ab. MM 12, 387 (No. 58).**

A name suggested in a new classification of petroleum, bitumen, etc.

McGovernite. **DT 688. AM 12, 373 (Oct. 1927). MA 3, 366. Ab. MM 21, 570 (No. 122). CA 22, 2905.**

Hexagonal (?). Coarse, granular masses with micaceous cleavage. Reddish brown. H 3. G 3.719. A hydrous silicate, arsenate, and arsenite of manganese, magnesium, and zinc. $21(Mn,Mg,Zn)O.3SiO_2.\frac{1}{2}As_2O_3.As_2O_5.10H_2O$. Sterling Hill, New Jersey.

Megabromite. **Ab. MM 15, 426 (No. 72).**

A variety of embolite with composition 4AgCl.5AgBr, as distinct from orthobromite and microbromite.

Melanochalcite. **Ap. II, 67. DT 480. Ab. MM 13, 371 (No. 62).**

Amorphous. Pitch-black. H 4. G 4.141. Described as a basic silico-carbonate of copper, $Cu_2(Si,C)O_4.Cu(OH)_2$, but proved to be a mixture of cuprite, chrysocolla, and malachite. Various localities in Arizona and elsewhere.

Melanostibian. **Ap. I, 45. Ab. MM 11, 332 (No. 53).**

Massive, foliated. Black. H 4. An antimonite of manganese and iron. Sjö mine, Örebro, Sweden.

Melanovanadite. **DT 726. Ab. AM 7, 163 (Sept. 1922). MA 1, 250 and 376. Ab. MM 19, 344 (No. 98). CA 16, 1553.**

Monoclinic. Needles. Black. H 2.5. G 3.477. A hydrous calcium-vanadyl vanadate. $2CaO.2V_2O_4.3V_2O_5.xH_2O$. Minasragra, Peru.

Melite. **Ap. II, 68. DT 684. Ab. MM 12, 68 (No. 58).**

Imperfect prismatic forms and stalactites. Bluish brown. H 3. G 2.18. A hydrous silicate of aluminum and iron. $2(Al,Fe)_2O_3.SiO_2.8H_2O$. Saalfeld, Thuringia.

Mellahite. **Ab. AM 13, 201 (May 1928). Ab. MM 21, 571 (No. 122). CA 21, 2860.**

"A name applied to the mixed salts obtained from the Mellaha salines by evaporation. $MgSO_4$, 31–33%; $MgCl_2$, 2–4%; NaCl, 18–20%; KCl, 19–21%. Not a mineral."

Mellonite. **Ab. MM 16, 364 (No. 77).**

Impure pseudocotunnite, or a mixture of chlorides and sulfates of sodium, potassium, copper, and lead.

Melnikovite. Ap. III, 49. AM 12, 417–421 (Dec. 1927). Ab. MM 16, 364 (No. 77). CA 7, 1690.

H 2–3. G 4.1–4.3. An unstable, amorphous type of iron disulfide, FeS_2, forming in Missouri and Arkansas "a thin band of black powder-like material between layers of pyrite." In Russia, "minute, black, magnetic grains in Miocene clay. It is regarded as having been derived from a colloidal form of iron sulfide."

Melnikovite-pyrite. Ab. MM 24, 618 (No. 158).

"Shelly, concentric mixtures of pyrite and marcasite crystallized from a gel, which is assumed to be identical with melnikovite."

Melopsite. AM 19, 287 (June 1934). MA 5, 296. Ab. MM 23, 634 (No. 146).

Same as melosark. An obsolete dealer's name.

Melosark. AM 19, 287 (June 1934). MA 5, 296. Ab. MM 23, 634 (No. 146).

An obsolete dealer's name for melopsite.

Mendeleeffite. CA 17, 2406.

Same as mendelyeevite.

Mendelyeevite. DT 699. Ab. MM 19, 344 (No. 98). MA 2, 149. CA 17, 2406.

Isometric. Rhombic dodecahedrons. Grayish black. H 4.5. G 4.76. A calcium urano-titano-niobate, containing 23.5%, U_3O_8, over 15%, CaO, some lead, a little iron, and rare earths. It is referred to the betafite group. Lake Baikal, Siberia.

Mercallite. Ab. MM 24, 618 (No. 158). MA 6, 148. CA 29, 7876.

Orthorhombic. Minute tabular crystals. G 2.307–2.310. "Potassium-hydrogen sulfate, $KHSO_4$." Vesuvius, Italy.

Mercurammonite. Ap. III, 49. DT 459. Ab. MM 15, 425 (No. 72).

Same as kleinite.

Mercuric iodide. Ap. II, 68.

Minute cubes. Scarlet-red. Probably mercuric iodide. Relation to coccinite is doubtful. Broken Hill, New South Wales.

Merrillite. DT 703. AM 2, 119 (Sept. 1917). Ab. AM 10, 448 (Dec. 1925). MA 1, 41; 2, 560. Ab. MM 18, 384 (No. 87). CA 11, 2760.
Uniaxial, negative. Colorless. G 3.10. A phosphate of calcium and sodium. $3CaO.Na_2O.P_2O_5$. Found in minute quantities in some meteoric stones.

Merwinite. DT 600. AM 6, 143 (Oct. 1921). MA 1, 254. Ab. MM 19, 345 (No. 98). CA 16, 40.
Monoclinic. Grains. Colorless to pale green. H 6. G 3.150. A silicate of calcium and magnesium. $Ca_3Mg(SiO_4)_2$. Crestmore, California; Scawt Hill, County Antrim, Ireland; Valardeña, Durango, Mexico.

Mesabite. Ap. I, 46. DT 504. Ab. MM 11, 332 (No. 53).
An ocherous variety of goethite. Mesabi, Minnesota.

Mesodialyte. DT 581. Ab. AM 12, 97 (Mar. 1927). MA 2, 264. Ab. MM 20, 461 (No. 110).
"An optically isotropic, intermediate member of the eudialyte—eucolite series." Kola Peninsula, Russian Lapland.

Mesquitelite. Ab. MM 24, 618 (No. 158). MA 6, 441. CA 32, 888.
A clayey alteration product of feldspar. G 2.12. A hydrous silicate of magnesium, calcium, and aluminum. $(Mg, Ca)O.2Al_2O_3.9SiO_2.5H_2O$. Near montmorillonite. Mesquitela, Portugal.

Metaautunite. Ab. MM 14, 403 (No. 67).
Same as metakalkuranite.

Metabentonite. Ab. MM 24, 618 (No. 158).
Metamorphosed bentonite as altered volcanic tuffs in Paleozoic rocks.

Metabiotite. AM 12, 222 (May 1927). Ab. MM 20, 461 (No. 110).
"Chemical name for biotite changed by heating." Same as bauerite.

Metaboracite. Ab. MM 14, 403 (No. 67).
A dimorphous form of boracite of higher symmetry, met with at ordinary temperatures, whereas the name boracite is properly restricted to the isometric, optically isotropic, modification of the same substance, which is stable only above 265°C.

Metabrucite. Ap. III, 49. Ab. MM 17, 354 (No. 82). MA 6, 348. CA 8, 1943.

"The metabrucite produced by dehydration of brucite consists of an aggregate of deformed periclase crystals in parallel position."

Metacalciowardite. Ab. MM 23, 634 (No. 146).

An undescribed mineral, presumably a calciferous variety of wardite. Near Manhattan, Nevada.

Metachabazite. AM 12, 222 (May 1927). Ab. MM 20, 461 (No. 110).

"Chemical name for chabazite changed by heating."

Metachalcolite. DT 734. Ab. MM 13, 371 (No. 62).

Same as meta-torbernite I.

Metachalcophyllite. Ab. MM 14, 403 (No. 67).

Name given to chalcophyllite that has been partly dehydrated by heating artificially until only the water of constitution remains. The loss of water produces changes in the optical properties.

Metachamoisite. Ab. MM 23, 634 (No. 146).

Artificially dehydrated chamoisite.

Metacinnabar. MA 2, 492. Ab. MM 20, 461 (No. 110).

Variant of metacinnabarite.

Metacristobalite. Ab. MM 15, 425 (No. 72).

The optically isotropic phase of cristobalite, stable above 175°C.

Metadesmine. Ap. I, 46. Ab. MM 11, 333 and 343 (No. 53).

Name given to substances of definite chemical composition and optical properties produced when water is artificially expelled from stilbite.

Metagreenalite. AM 20, 405–425 (June 1935); 21 449–455 (July 1936). MA 6, 152 and 480.

Anisotropic. Green. G 2.85–3.15. A crystallized alteration product of greenalite. A hydrous silicate of iron. $9FeO.Fe_2O_3.8SiO_2.8H_2O$. Mesabi range, Minnesota.

Metahalloysite. Ab. MM 24, 618 (No. 158). MA 6, 181.

Halloysite, $H_4Al_2Si_2O_9.2H_2O$, when partially dehydrated at 50°C., loses $2H_2O$, then having the kaolinite formula, $H_4Al_2Si_2O_9$, but with a distinct crystal structure.

Metaheulandite. DT 645. AM 10, 305–331 (Sept. 1925). Ab. MM 12, 387 (No. 58).

A form of heulandite formed by heating heulandite to 190°C. It is a three-molecule hydrate.

Metahewettite. Ap. III, 49. DT 725. Ab. MM 17, 355 (No. 82). CA 8, 2992.

Orthorhombic. Earthy, composed of minute tabular crystals. Deep red. G 2.511. A hydrous vanadate of calcium, same as hewettite. Southwestern Colorado and southeastern Utah.

Metajarlite. Ab. AM 20, 137 (Feb. 1935). MA 5, 388. Ab. MM 23, 634 (No. 146). CA 29, 4697.

Monoclinic. Small crystals. Gray. H 4–4.5. G 3.780–3.781. A fluoride of sodium, strontium, and aluminum, with some calcium and magnesium. $NaSr_3Al_3F_{16}$. Ivigtut, Greenland.

Metakalkuranite. Ap. II, 68. Ab. MM 13, 371 (No. 62).

Autunite from which part of the water has been expelled artificially by heating, thus causing an important series of changes in the optical characters.

Metakaolin. Ab. MM 20, 461 (No. 110).

Artificially dehydrated kaolin.

Metakaolinite. MA 6, 371. CA 27, 1595.

An endothermal product of certain clays. A silicate of aluminum. $Al_2Si_2O_7$. Near Potiekhino, Siberia.

Metakernite. Ab. AM 22, 71 (Jan. 1937). Ab. MM 24, 618 (No. 158). CA 30, 2529.

Amorphous. "The sodium tetraborate dihydrate, $Na_2B_4O_7 \cdot 2H_2O$, formed from kernite by treatment with dehydrating agents or thermal treatment (100–120°) and which will regenerate to kernite with water vapor."

Metakoenenite. Ap. II, 68. Ab. MM 13, 371 (No. 62).

An artificially produced secondary product of koenenite.

Metakupferuranite. Ap. II, 68. DT 734. Ab. MM 13, 372 (No. 62).

Same as meta-torbernite I.

Metaleucite. Ab. MM 14, 403 (No. 67).

A dimorphous form of leucite of higher symmetry, met with at ordinary temperatures, whereas the name leucite is properly

restricted to the isometric, optically isotropic, modification of the same substance, which is stable only above 600°C.

Metamesolite. MA 4, 321. Ab. MM 22, 624 (No. 134).
Artificially dehydrated mesolite.

Metamilarite. DT 535. Ab. AM 13, 33 (Jan. 1928). MA 3, 451. Ab. MM 21, 571 (No. 122).
Artificially dehydrated milarite.

Metanacrite. Ab. MM 20, 461 (No. 110).
Artificially dehydrated nacrite.

Metanatrolite. Ap. III, 50. Ab. MM 16, 365 (No. 77). MM 23, 282 (No. 139).
Monoclinic. Dehydrated natrolite. A silicate of sodium and aluminum. $Na_2Al_2Si_3O_{10}$. See epinatrolite.

Metanhydrite. Ap. II, 68. Ab. MM 14, 403 (No. 67).
A modification of calcium sulfate, prepared artificially, in small orthorhombic crystals. It appears to be isomorphous with barite though in cleavage and specific gravity it is identical with anhydrite. Probably occurs as a volcanic product at Santorin.

Metanocerine. Metanocerite. Ap. I, 46. Ab. MM 11, 332 (No. 53).
A mineral resembling nocerite. White. H 4.5. Arendal, Norway.

Metaparisite. AM 8, 186 (Oct. 1923). Ab. MM 19, 345 (No. 98).
Parisite from which carbon dioxide has been artificially expelled by heat without destruction of the crystalline structure

Metaperovskite. Ab. MM 14, 403 (No. 67).
A dimorphous form of perovskite of higher symmetry, met with at ordinary temperatures, whereas the name perovskite is properly restricted to the isometric, optically isotropic, modification of the same substance, stable only at high temperatures.

Metarossite. DT 725. Ab. AM 13, 160 (Apr. 1928). MA 3, 470. Ab. MM 21, 571 (No. 122). CA 22, 1119.
Flaky, in veinlets. Yellow. A hydrous calcium vanadate. $CaO.V_2O_5.2H_2O$. A dehydrated product of rossite. San Miguel County, Colorado; near Thompson's Utah.

Metascolecite. **Ap. I, 46. DT 655. Ab. AM 7, 133 (July 1923). Ab. MM 11, 332 (No. 53). MA 2, 59. MM 24, 247–250 (No. 152). CA 15, 3958.**

Name given to partly dehydrated scolecite, differing in optical properties. A hydrous silicate of calcium and aluminum. $CaAl_2Si_3O_{10}.2H_2O$. Its supposed occurrence in Bohemia is disproved.

Metataenite. **MA 6, 390. MM 24, 619 and 620 (No. 158).**

A meteoric nickeliferous iron consisting of taenite with admixed kamacite. Ranging up to Fe_7Ni.

Metathenardite. **DT 747. Ab. MM 16, 365 (No. 77).**

Thenardite when heated to 235°C. is changed to this negative, uniaxial form.

Meta-thuringite. **Ab. MM 23, 634 (No. 146).**

Artificially dehydrated thuringite.

Meta-torbernite I. **DT 734. Ab. AM I, 52 (Sept. 1916). Ab. AM 8, 115 (June, 1923). MM 17, 333 (No. 82). Ab. MM 17, 354 (No. 82). MM 19, 430 (No. 89). CA 14, 3047.**

Orthorhombic. Square, tabular crystals, in rosettes or sheaf-like aggregates. Emerald-green. G 3.670-3.700. A hydrous phosphate of copper and uranium. $Cu(UO_2)_2(PO_4)_2.8H_2O$. The first dehydration product (in air below 100°C.) of torbernite. Gunnislake, Cornwall, England.

Meta-torbernite II. **DT 734. Ab. AM 1, 52 (Sept. 1916). Ab. MM 17, 354 (No. 82).**

The second dehydration product (at 130°C.) of torbernite.

Metatriplite. **Ab. MM 24, 619 (No. 158). MA 6, 442. CA 32, 888.**

A black alteration product of triplite. G 3.55. A hydrous fluo-phosphate of manganese and iron. $6MnO.3Fe_2O_3.3P_2O_5.-2(Mn,Ca)F_2.4H_2O$. Mangualde, Portugal.

Metauranocircite. **Ab. MM 14, 403 (No. 67).**

"See metachalcophyllite."

Metavariscite. **DT 724. AM 10, 23–28 (Feb. 1925). MA 2, 421. Ab. MM 20, 461 (No. 110). CA 19, 1238.**

Orthorhombic. H 4. G 2.54. A hydrous phosphate of aluminum. $AlPO_4.2H_2O$. Lucin, Utah. Dimorphous with variscite.

Metavauxite. **AM 12, 264 (June 1927). MA 3, 370. Ab. MM 21, 571 (No. 122).**

Monoclinic. Acicular crystals, or radiating fibrous aggregates. Colorless or white. H 3. G 2.34. A basic, hydrous phosphate of iron and aluminum. $FeO.Al_2O_3.P_2O_5.4H_2O$. Llallagua, Bolivia.

Meyerhofferite. **Ap. III, 50. DT 743. Ab. MM 17, 354 (No. 82). MA 1, 258. CA 10, 2082.**

Triclinic. Prismatic crystals, often tabular; fibrous. Colorless. H 2. G 2.120. A hydrous borate of calcium. $2CaO.3B_2O_3.7H_2O$. Inyo County, California.

Meyersite. **DT 724. Ab. AM 9, 156 (July 1924). MA 2, 11. Ab. MM 20, 462 (No. 110).**

Metacolloidal (?). Agate-like masses in lava. A hydrous aluminum phosphate. $AlPO_4.2H_2O$. Necker Island, near Hawaiian Islands.

Micaultite. **Ab. MM 14, 404 (No. 67).**

An earthy, brick-red decomposition product of rutile. May be an aluminous hydrorutile. Morbihan, France.

Microantigorite. **Ab. MM 23, 634 (No. 146).**

A minutely crystalline antigorite.

Microbromite. **Ab. MM 15, 426 (No. 72).**

A variety of embolite with composition 3AgCl.AgBr, as distinct from orthobromite and megabromite.

Microlepidolite. **Ab. MM 13, 372 (No. 62).**

A variety of lepidolite distinguished from macrolepidolite by its small optic axial angle.

Miedziankite. **DT 454. MA 3, 233. Ab. MM 20, 462 (No. 110). CA 21, 1781.**

Compact, granular. Gray. H 3–4. G 4.700. A variety of tennantite containing zinc. $2Cu_3AsS_3.ZnS$. Alters to staszicite. Miedzianka, Poland.

Miersite. **Ap. I, 47; II, 69; III, 51. DT 459. MM 13, 41 (No. 59). Ab. MM 12, 386 (No. 58). MM 13, 188 (No. 60). CA 8, 3169.**

Isometric. Tetrahedral or cubo-octahedral crystals. Canary-yellow. H 2.5. G 5.640. An iodide of silver and copper. 4AgI.CuI. Broken Hill, New South Wales.

Millisite. **DT 734. AM 15, 329 (Aug. 1930). MA 4, 344. Ab. MM 22, 625 (No. 134). CA 25, 1769.**

Monoclinic (?). Fibrous bands resembling chalcedony. White. H 5.5. G 2.83. Hydrous phosphate of aluminum, calcium, and sodium. $2CaO.Na_2O.6Al_2O_3.4P_2O_5.17H_2O$. Near Fairfield, Utah.

Millosevichite. **Ap. III, 51. DT 754. Ab. MM 16, 365 (No. 77). CA 7, 2370.**

An incrustation. Violet. Normal ferric and aluminum sulfate. Vulcano, Lipari Islands, Italy.

Milowite. **Ab. AM 20, 678 (Sept. 1935). Ab. MM 21, 571 (No. 122). CA 29, 5783.**

"A trade-name for a very fine-grained, chalk-like form of quartz, occurring in large quantities on the Island of Milos, Grecian Archipelago. SiO_2 97.86%."

Minasite. **Ab. MM 18, 384 (No. 87).**

A pebble ("fava"). At first supposed to be a new aluminum hydroxide, $2Al_2O_3.3H_2O$. Later admitted to be impure and name dropped. Minas Geraes, Brazil.

Minasragrite. **Ap. III, 51. DT 770. Ab. MM 17, 355 (No. 82). MA 1, 207. CA 9, 426.**

Monoclinic. Usually as an efflorescence on patronite in granular aggregates. Blue. An acid hydrous vanadyl sulfate. $V_2O_4.3SO_3.16H_2O$. Minasragra, Peru.

Mindigite. **Ab. AM 20, 813 (Nov. 1935). MA 6, 52. CA 29, 2887.**

Colloidal crusts. Pitch-black. H 2.5. G 3.07. A cobalt and copper hydroxide. $9Co_2O_3.2CuO.16H_2O$. Near heterogenite (now called lubumbashite). Katanga, Belgian Congo.

Minervite. **Ap. I, 47; III, 51. DT 731. Ab. MM 11, 332 (No. 53); 19, 246 (No. 95). CA 8, 2137 and 3171.**

Name for a series of hydrous aluminum and potassium phosphates, derived from guano, etc. Grotto de Minerve, France.

Minguétite. **Ap. III, 52. DT 673. Ab. MM 16, 365 (No. 77). CA 5, 1245.**

Monoclinic. Micaceous. Blackish green. G 2.86. A hydrous silicate of ferrous and ferric iron (with some aluminum, magnesium, and potassium). $17SiO_2.4(Fe,Al)_2O_3.8(Fe,Mg)O.$-

$(K,Na)_2O.8H_2O$. Intermediate between the iron-mica, lepidomelane, and the iron-chlorite, stilpnomelane. Minguet mine, near Segré, France.

Minyulite. **Ab. AM 18, 512 (Nov. 1933). MA 5, 293. Ab. MM 23, 634 (No. 146). CA 29, 3265.**

Orthorhombic. Radiating groups of needles. White. H 3.5. G 2.45. A basic hydrous fluo-phosphate of potassium and aluminum. $2K(OH,F).2Al_2O_3.2P_2O_5.7H_2O$. Dandaragan, Western Australia.

Mitchellite. **Ap. I, 47. DT 493. Ab. MM 12, 387 (No. 58).**

A variety of chromite containing much magnesium. A chromate and aluminate of iron and magnesium. $2MgAl_2O_4.MgCr_2O_4.FeCr_2O_4$. Near to or identical with magnochromite. Webster, North Carolina.

Mithridatite. Mitridatite. **MA 7, 60. CA 31, 6141; 32, 2873.**

Nodules, veinlets, shells, earthy. A hydrous phosphate of calcium and iron. $3CaO.2Fe_2O_3.2P_2O_5.nH_2O$. An alteration product of vivianite. Approaches calcioferrite. Kamysh-Burun, Kertsch Peninsula, Crimea, Russia.

Mitscherlichite. **DT 469. Ab. AM 14, 387 (Oct. 1929). MA 4, 14. Ab. MM 21, 571 (No. 122). CA 23, 4167.**

Minute crystals. Greenish blue. G 2.418. A hydrous chloride of potassium and copper. $K_2CuCl_4.2H_2O$. Vesuvius, Italy.

Modderite. **DT 436. Ab. AM 11, 77 (Mar. 1926). MA 3, 115.**

Bluish white. A sulfarsenide of cobalt. Co(S,As). Witwatersrand, Transvaal.

Mohavite. **AM 13, 453 (Aug. 1928). Ab. MM 23, 634 (No. 146). MA 4, 246.**

Rhombohedral. An alteration film. Dull white. Locally "octahedral borax" (same as tincalconite). A hydrous borate of sodium. $Na_2B_4O_7.5H_2O$. Mohave Desert, California.

Mohawk-algodonite. **Ap. II, 2. Ab. MM 13, 372 (No. 62).**

Massive. Copper arsenides of variable composition, but approximating to that of algodonite. Mohawk mine, Keweenaw County, Michigan.

Mohawkite. **Ap. II, 36 and 70. DT 415. Ab. MM 13, 372 (No. 62).** Massive, fine granular. Gray, tinged yellow. H 3.5. G 8.07. A nickeliferous and cobaltiferous variety of domeykite. (Cu, Ni,Co)$_3$As. Mohawk mine, Keweenaw County, Michigan.

Mohawk-whitneyite. **Ap. II, 70. Ab. MM 13, 372 (No. 62).** An intimate mixture of mohawkite and whitneyite. Mohawk mine, Keweenaw County, Michigan.

Moissanite. **Ap. II, 70. DT 408. Ab. MM 14, 404 (No. 67).** Hexagonal. Minute green plates in the meteoric iron of Cañon Diablo, Arizona. Carbon silicide. CSi. H 9.5. Identical with the artificial carborundum.

Moldavite. Moldovite. **Ap. II, 70; III, 52. Ab. MM 12, 387 (No. 58); 13, 372 (No. 62).** (*a*) A specific name for ozocerite from Moldavia. (*b*) A glass, dull green, somewhat resembling obsidian. Moravia; etc.

Molengraaffite. **Ap. III, 52. DT 690. Ab. MM 16, 365 (No. 77).** Monoclinic. Imperfect prisms, resembling astrophyllite. Yellowish brown. A titano-silicate chiefly of calcium and sodium. Probably identical with lamprophyllite. Pilandsberg, Transvaal.

Molybdophyllite. **Ap. II, 70. DT 604. Ab. MM 13, 373 (No. 62). CA 15, 3262.** Hexagonal. Foliated, resembling mica. Colorless, white, pale green. H 3–4. G 4.717. A basic silicate of lead and magnesium. $Pb_2Mg_2Si_2O_7(OH)_2$. (Berman). Langban, Sweden.

Molybdosodalite. **Ap. III, 52. DT 588. Ab. MM 16, 365 (No. 77). CA 9, 774.** A variety of sodalite containing 2.87% molybdenum trioxide, MoO_3, and a deficiency of chlorine (2.28%). Monte Somma, Vesuvius, Italy.

Monrepite. **DT 673. Ab. AM 14, 77 (Feb. 1929). MA 3, 500 Ab. MM 21, 572 (No. 122). CA 23, 2125.** A black mica containing ferrous and ferric iron. $H_2KFe''_3Fe'''(SiO_4)_3$. Monrepos, Finland.

Montasite. Ab. AM 16, 409 (Sept. 1931). Ab. MM 22, 625 (No. 134). "A registered trade-name for asbestos fiber from the Montana mine, Pietersburg-Lydenburg district, South Africa." A variety of amosite.

Montroydite. Ap. II, 71; III, 53. DT 480. Ab. MM 13, 373 (No. 62). CA 1, 2454.

Orthorhombic. Minute prismatic crystals and velvety crusts. Orange-red. H 1.5–2. Mercuric oxide. HgO. Terlingua, Texas; San Mateo County, California.

Mooraboolite. Ap. II, 71 and 74. Ab. MM 13, 373 (No. 62). MM 14, 122 (No. 64).

Radial aggregates. White. A zeolite agreeing with natrolite in crystallographic and physical characters and chemical composition. Moorabool Valley, Victoria, Australia.

Mooreite. DT 763. AM 14, 165 (May 1929). MA 4, 151. Ab. MM 22, 625 (No. 134). CA 23, 3642.

Monoclinic. Tabular crystals. Glassy white. H 3. A hydrous sulfate of magnesium, zinc, and manganese. $RSO_4 \cdot 7R(OH)_2 \cdot 4H_2O$, with R = Mg:Mn:Zn = 4:1:2. Sterling Hill, New Jersey.

Moravite. Ap. II, 71. DT 672. Ab. MM 14, 404 (No. 67).

A fine-scaly chloritic mineral of the leptochlorite group, resembling thuringite. Iron-black. H 3.5. G 2.38. A hydrous silicate of aluminum, iron, and magnesium. $H_4(Al, Fe)_4(Fe,Mg)_2Si_7O_{24}$. Gobitschau, Moravia.

Morencite. Ap. II, 72. DT 685. Ab. MM 14, 404 (No. 67). MA 3, 452. CA 23, 1082.

Fibrous. Brownish yellow. A hydrous silicate of ferric iron with some magnesia, lime, and alumina. Structurally identical with nontronite. Morenci, Arizona.

Morganite. Ap. III, 53. DT 580. Ab. MM 16, 365 (No. 77). CA 5, 1250.

A rose-colored, alkali-bearing variety of beryl of gem quality. Identical with the previously described vorobyevite. Maharitra Valley of Sahatony, Madagascar; Pala, San Diego County, California.

Mormanite. CA 25, 4494.

Same as murmanite.

Moronite. **Ap. I, 47. Ab. MM 12, 387 (No. 58).**

A mixed siliceous and calcareous deposit formed of the remains of foraminifera, etc. Moron, Spain.

Mosesite. **Ap. III, 53. DT 459. AM 17, 541–550 (Dec. 1932). Ab. MM 16, 366 (No. 77). CA 4, 2920.**

Isometric. Minute octahedrons. Yellow. H over 3. A mercurous and ammonium chloride and sulfate. Terlingua, Texas; Fitting district, Nevada.

Mossite. **Ap. I, 48; III, 53. DT 697. Ab. MM 12, 130 (No. 55); 12, 388 (No. 58). CA 1, 1373.**

Tetragonal. Crystals twinned to resemble simple rhombic prisms. Black. G 6.45. A tantalo-niobate of iron. $Fe(Nb, Ta)_2O_6$. A variety of tapiolite. Berg, near Moss, Norway.

Mouchketovite. **Ab. MM 13, 373 (No. 62).**

Same as muschketowite.

Mourmanite. **CA 25, 4494.**

Same as murmanite.

Muellerite. **Ap. II, 91.**

Same as schertelite. To be distinguished from müllerite, DS p. 807.

Mullanite. **DT 450. Ab. AM 3, 39 (Apr. 1918). AM 6, 13 (Jan. 1921). Ab. MM 18, 384 (No. 87). MA 1, 151. CA 12, 666.**

Orthorhombic. Fibrous and wool-like masses. Steel-gray. H 3.5. G 6.407. A sulfantimonite of lead. $5PbS.2Sb_2S_3$. Identical with boulangerite. Near Mullan, Idaho.

Müllerite. (*a*) **DS p. 807.** (*b*) **Ap. II, 72; III, 53. DT 685. Ab. MM 12, 388 (No. 58). CA 23, 1082.**

(*a*) "Stated to be a new species from the guano of Skipton Caves, near Ballarat, Victoria." (*b*) Massive. Yellowish green. Soft. G 1.97. A hydrous silicate of iron. $Fe_2O_3.3SiO_2.2H_2O$. Later proposed that this mineral be named zamboninite (in order to avoid confusion!). Differs from nontronite in containing but two molecules of water. Nontron, France; Tirschenreuth, Bavaria, Germany. Not the same as muellerite.

Mullite. **DT 617. Ab. AM 9, 211 (Oct. 1924). MA 2, 303; 2, 377. Ab. MM 20, 462 (No. 110). CA 18, 2304.**

Orthorhombic. In prisms. Colorless to delicate pink. A silicate of aluminum. $3Al_2O_3.2SiO_2$. In "sillimanite buchite"

on the Island of Mull, Scotland. Artificially prepared, it is often called sillimanite.

Munkforssite. **Ap. I, 48. Ab. MM 11, 332 (No. 53).**
Monoclinic (?). Massive, foliated, or granular. White, pale reddish. H 5. A phosphate and sulfate of calcium and aluminum. Wermland, Sweden.

Munkrudite. **Ap. I, 48. Ab. MM 11, 332 (No. 53).**
Foliated and crystalline. Colorless to yellow. A phosphate and sulfate of iron and calcium. Munkerud, Sweden.

Muntenite. **Ab. AM 13, 201 (May 1928). MA 4, 297. Ab. MM 21. 572 (No. 122). CA 25, 3277.**
A variety of amber. Olanesti, Rumania.

Murmanite. **DT 582. AM 11, 294 and 297 (Nov. 1926). Ab. MM 20, 462 (No. 110). MA 5, 198. CA 22, 4412; 30, 8081.**
Scales with micaceous cleavage. Violet. H 2–3. G 2.84. A hydrous titano-silicate of sodium with manganese, calcium, iron, zirconium, etc. $RO.2Na_2O.4SiO_2.4(TiO_2,ZrO_2).4H_2O$. Kola Peninsula, Russian Lapland.

Muschketowite. **Ap. II, 72. Ab. MM 12, 388 (No. 58).**
A pseudomorph of magnetite after hematite. Urals.

Muthmannite. **Ap. III, 53. DT 442. Ab. MM 16, 366 (No. 77). CA 5, 3783; 6, 1119; 9, 42.**
Tabular crystals. Gray-white, tarnishing to brass-yellow. H 2.5. A monotelluride of silver and gold. (Ag,Au)Te. Previously confused with krennerite, a ditelluride, $AuTe_2$, containing but a little silver. Presumably from Nagyag, Transylvania, Rumania.

Myrickite. **Ab. MM 16, 366 (No. 77).**
A local trade name for a variety of chalcedony, showing red spots on a gray ground, resembling "St. Stephen's stone." San Bernardino County, California.

Myrmekite. **MA 1, 330. CA 4, 1856; 7, 2919.**
"Small bud-like and coral-like masses composed of threads of quartz penetrating orthoclase and microperthite." Fensteralp, Styria.

N

Naëgite. Ap. II, 72. DT 611. Ab. MM 14, 404 (No. 67). MA 2, 36.
Tetragonal. Spheroidal aggregates of small, indistinct crystals. Green, gray, brown. H 7.5. G 4.09. Regarded as a solid solution of ZrO_2, SiO_2, ThO_2, and UO_2. Probably isomorphous with zircon. Naëgi, Mino, Japan.

Nagatelite. Ab. AM 16, 343–344 (Aug. 1931). MA 4, 500; 5, 52. Ab. MM 22, 625 (No. 134). CA 25, 2078.
Monoclinic. Prismatic crystals, or tabular masses. Black. H 5.5. G 3.91. A basic phospho-silicate of aluminum, rare earths, calcium, iron, etc. $4R''O.3R'''_2O_3.6(SiO_2,P_2O_5).2H_2O$, with $R'' = Ca$, Fe; $R''' = Al$, Ce, La, Y, etc. Also called phosphoroorthite, because of its conformity to orthite. Nagatejima, Ishikawa, Iwaki, Japan.

Nahcolite. DT 531. Ab. AM 14, 387 (Oct. 1929). MM 22, 60 (No. 124). Ab. MM 22, 625 (No. 134). CA 23, 3420.
Monoclinic. Small prismatic crystals. White. Sodium bicarbonate. $NaHCO_3$. Near Naples, Italy.

Naphteine. Naphthine. Naphtine. Ab. MM 16, 366 (No. 77).
A mineral wax, identical with hatchettite. Beaulieu, France.

Naphtolithe. Ab. MM 17, 355 (No. 82).
A bituminous shale. Thelots, France.

Narsarsukite. Ap. II, 73. DT 691. Ab. MM 12, 388 (No. 58). MA 5, 187.
Tetragonal. Tabular crystals. Yellow. H 7. G 2.751. A highly acidic titano-silicate of sodium (and iron). $Na_2TiSi_4O_{11}$. Narsarsuk, Greenland; Sweet Grass Hills, Montana.

Nasonite. Ap. I, 48; II, 73; III, 54. DT 584. Ab. MM 12, 316 (No. 57); 12, 388 (No. 58). MA 1, 419.
Hexagonal. Rounded crystals; usually massive. White. H 4. G 5.425. A silicate of lead and calcium with lead chloride. $Pb_4(PbCl)_2Ca_4(Si_2O_7)_3$. Franklin, New Jersey; Langban, Sweden.

Natramblygonite. Ap. III, 54 and 31. DT 712. Ab. MM 16, 367 (No. 77); 17, 355 (No. 82). CA 5, 1043.
A soda amblygonite, differing from ordinary amblygonite in that lithium is largely replaced by sodium (Na_2O, 11.23%),

the formula being (Na,Li)Al(OH,F)PO_4. Name later changed to natromontebrasite and fremontite. Cañon City, Colorado.

Natroalunite. Ap. II, 73; III, 54. DT 768. Ab. AM 2, 120 (Sept. 1917). Ab. MM 13, 373 (No. 62); 18, 381 (No. 87). MA 1, 379.

The soda end member of the alunite group. $Na_26Al(OH)_2.4(SO_4)$.

Natrochalcite. Ap. II, 73. DT 765. Ab. MM 15, 425 (No. 72) CA 2, 3218.

Monoclinic. Steep, pyramidal crystals. Bright emerald-green. H 4.5. G 2.33. A hydrous sulfate of copper and sodium. $Na_2SO_4.Cu_4(OH)_2(SO_4)_3.2H_2O$. Chuquicamata, Antofagasta, Chile.

Natrodavyne. Ap. III, 54. Ab. MM 16, 367 (No. 77); 20, 444 (No. 110). CA 9, 774.

A variety of davyne in hexagonal crystals containing no potassium and much carbon dioxide. Vesuvius, Italy.

Natrohitchcockite. Ab. AM 2, 120 (Sept. 1917). Ab. MM 18, 384 (No. 87). MA 1, 379.

The soda-bearing end member of the alunite-beudantite group. $Na_2H_46Al(OH)_2.4(PO_4)$.

Natrojarosite. Ap. II, 73; III, 54. DT 769. Ab. MM 13, 373 (No. 62). CA 11, 2652.

Rhombohedral. A glistening powder made up of minute tabular crystals. Yellowish brown to golden-yellow. G 3.18. A basic sulfate of iron and sodium. Sodaville, Nevada; Cook's Peak, New Mexico; Kingman, Arizona; Cape Calamita, Elba; Kundip, Western Australia.

Natromontebrasite. DT 712. Ab. MM 17, 355 (No. 82).

To replace the name natramblygonite, since the mineral is a hydrofluophosphate rather than a fluophosphate, thus emphasizing the distinction between amblygonite and montebrasite. See fremontite.

Natronamblygonite. Ab. MM 16, 367 (No. 77).

Same as natramblygonite.

Natronberzeliite. Ap. I, 49. Ab. MM 11, 332 (No. 53).

Same as soda-berzeliite.

Natroncatapleiite. **Ab. MM 12, 388 (No. 58).**

Catapleite containing soda in place of lime. Also called soda-catapleiite.

Natronkalisimonyite. **Ap. II, 74. Ab. MM 13, 373 (No. 62).**

Probably a variety of bloedite, though differing slightly in composition. Kalusz, Galicia.

Natronmelilite. **Ab. MM 16, 367 (No. 77).**

A melilite-like mineral occurring in the rock, farrisite, afterward suggested to belong to the scapolite group.

Natronphlogopite. **Ab. MM 13, 373 (No. 62).**

A white mica containing magnesia and soda (and potash). Styria.

Natronrichterite. **Ap. I, 49. Ab. MM 11, 332 (No. 53).**

Same as soda-richterite.

Natronsanidine. **Ap. III, 54. DT 538. Ab. MM 15, 426 (No. 72).**

A feldspar, with the habit of sanidine, occurring as phenocrysts in a soda-liparite. G 2.571. $8KAlSi_3O_8.9NaAlSi_3O_8$. Mitrowitza, Jugoslavia.

Natroxonotlite. **AM 8, 181 (Oct. 1923).**

An alkali variety of xonotlite. Near Magnet Cove, Arkansas.

Naujakasite. **Ab. AM 20, 138 (Feb. 1935). MA 5, 484. Ab. MM 23, 635 (No. 146). CA 29, 4700.**

Monoclinic, pseudohexagonal. Aggregates of minute mica-like plates. Silvery white, grayish. H 2–3. G 2.615. A hydrous silicate of sodium, iron, and aluminum. $3(Na_2,Fe)O.2Al_2O_3.8SiO_2.H_2O$. Naujakasik, Greenland.

Nauruite. **Ap. III, 54. DT 706. Ab. MM 17, 355 (No. 82). CA 17, 706.**

An amorphous, colloidal calcium phosphate, probably $3Ca_3P_2O_8.Ca(OH,F)_2$, incrusting the phosphate rock of Nauru Island in the Pacific Ocean.

Nefedjevite. **CA 8, 41.**

Same as nefedieffite, DS p. 708. Near lithomarge.

Nemaphyllite. **Ap. II, 74. DT 676. Ab. MM 14, 404 (No. 67).**

A chlorite-like mineral occurring as greenish scales with fibrous structure. H 3. G 2.60. It has the composition of serpentine, of which it is regarded as a variety, containing 2.11%, Na_2O. Zillerthal, Tyrol.

Neocolemanite. Ap. III, 54. DT 743. MM 16, 239–246 (No. 75). Ab. MM 16, 367 (No. 77). CA 6, 1118.

Described as a variety of colemanite, but proved to be identical with it. Lang, California.

Neokaolin. Ab. MM 24, 619 (No. 158).

Kaolin produced artificially from nepheline.

Neopurpurite. Ab. MM 24, 619 (No. 158). MA 6, 442. CA 32, 888.

An alteration product of lithiophilite. G 3.23. Violet, black. A hydrous phosphate of iron and manganese. $7(Fe, Mn)_2O_3.5P_2O_5.4H_2O$. Mangualde, Portugal.

Neotantalite. Ap. II, 74. DT 694. Ab. MM 13, 374 (No. 62).

Isometric. In octahedrons, resembling pyrochlore. Clear yellow. H 5–6. G 5.193. A hydrous tantalate (and niobate) of iron, manganese, and alkalies. Department l'Allier, France.

Nephritoid. (*a*) Ap. III, 55. Ab. MM 15, 426 (No. 72). (*b*) Ab. MM 23, 635 (No. 146).

(*a*) Identical with fasernephrite, a compact variety of amphibole. H 5–6. G 2.986. Radautal, Harz, Germany. (*b*) A variety of serpentine similar to bowenite. Russia (?).

Nepouite. Ap. II, 75. DT 677. Ab. MM 14, 405 (No. 67). CA 1, 542 and 1108.

Monoclinic. A finely crystalline powder made up of microscopic plates of hexagonal outline. Pale to deep green. H 2–2.5. G 2.47–3.24. A hydrous silicate of nickel and magnesium. $3(Ni,Mg)O.2SiO_2.2H_2O$. Nepoui and elsewhere in New Caledonia.

Neptunite. Ap. I, 49; II, 75; III, 55. DT 691. Ab. MM 11, 100 (No. 50); 11, 332 (No. 53). MA 3, 102. CA 1, 2784.

Monoclinic. Prismatic crystals. Black. H 5–6. G 3.234. A titano-silicate of iron, manganese, sodium, and potassium. $(Na,K)_2(Fe,Mn)(Si,Ti)_5O_{12}$. Narsarsuk, Greenland; San Benito County, California; Kola Peninsula, Russian Lapland.

Neslite. Ab. MM 15, 426 (No. 72).

Reniform nodules. A variety of opal closely resembling menilite. Nesle, Marne, France.

Neuquenite. Ab. MM 23, 635 (No. 146).

A variety of asphaltum from Neuquen territory, Argentina.

N'hangellite. Ab. MM 14, 405 (No. 67). CA 2, 522.
An elastic bitumen resembling coorongite. Lake N'hangella, Portuguese East Africa.

Nicholsonite. Ap. III, 56. DT 522. Ab. MM 16, 367 (No. 77).
A variety of aragonite containing up to 10% zinc. Leadville, Colorado; Tintic district, Utah; magnificent specimens at Tsumeb, South West Africa.

Nickel-linnaeite. DT 431. AM 8, 186 (Oct. 1923). Ab. MM 19, 245 (No. 98).
Same as polydymite.

Nickel-skutterudite. Ap. I, 49. DT 437. Ab. MM 11, 333 (No. 53).
A variety of skutterudite. Massive, granular. Gray. H 5. An arsenide of nickel, cobalt, and iron. $(Ni,Co,Fe)As_3$. Grant County, New Mexico.

Nicolayite. DT 620. Ab. AM 16, 409 (Sept. 1931). MA 4, 346. Ab. MM 22, 625 (No. 134). CA 26, 2944.
Amorphous. Yellow. G 4.13. A hydrous silicate of lead, calcium, thorium, and uranium, differing from maitlandite in the state of oxidation of the uranium. $2(Pb,Ca)O.3ThO_2.4UO_3.8SiO_2.21H_2O$. Wodgina, Western Australia. Formerly called thorogummite.

Nigglite. Ab. AM 23, 64 (Jan. 1938). Ab. MM 24, 619 (No. 158). MA 6, 440. CA 32, 885.
Anisotropic. Grains. Silver-white. Soft. A telluride of platinum. $PtTe_3$(?). Waterfall Gorge, Insizwa, South Africa.

Nigrite. Ap. II, 75. DT 778. Ab. MM 12, 388 (No. 58).
A variety of asphaltum from Utah. Not the same as nigrine, DS p. 238.

Niobium tapiolite. Ap. III, 53.
Same as mossite.

Niobpyrochlore. MA 5, 185. Ab. MM 23, 625 (No. 146).
Same as pyrochlore.

Niobtantalpyrochlore. Ab. MM 23, 625 (No. 146).
Same as neotantalite.

Nitratite. AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).
Preferred name for soda-niter, DS No. 683.

Norbergite. DT 628. Ab. AM 12, 266 (June 1927). AM 13, 349 (July 1928). MA 3, 110; 3, 273. Ab. MM 21, 572 (No. 122). CA 20, 1776.
Orthorhombic. Yellow or pink. H 5.5–6.5. G 3.1–3.2. A basic fluo-silicate of magnesium. $Mg_2SiO_4.Mg(F,OH)_2$. Norberg, Sweden; Franklin, New Jersey.

Normannite. Ab. AM 15, 203 (May 1930). MA 3, 540. Ab. MM 21, 572 (No. 122). CA 22, 4412.
Globular aggregates. Brown. A basic bismuth carbonate. $3Bi_2O_3.CO_2$. Identical with bismutospherite, DS No. 283. Neustädtel, Saxony, Germany.

Northupite. Ap. I, 49; II, 76. DT 527. Ab. MM 11, 159 (No. 51); 11, 226 (No. 52); 11, 333 (No. 53).
Isometric. Octahedrons. White, yellow or gray. H 3.5–4. G 2.380. A chloride and carbonate of magnesium and sodium. $MgCO_3.Na_2CO_3.NaCl$. Borax Lake, San Bernardino County, California.

Nuissierite. DT 707. Ab. MM 14, 405 (No. 67).
A calciferous mimetite. Yellow, greenish, grayish. G 5.042. Nuissière lead mine, near Chenelette France. First spelled nussierite.

Nuolaite. DT 698. Ab. AM 21, 269 (Apr. 1936). MA 4, 249. Ab. MM 22, 626 (No. 134). CA 26, 2397.
"A name given to a mixture of two minerals, (1) amorphous, transparent; (2) crystalline, opaque, differing from wiikite in being richer in thorium and free from uranium." The bulk analysis indicates a hydrous meta-niobate (and tantalate) and titanate of yttrium, iron, thorium, etc. Nuolainniemi, Finland.

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Oakermanite. AM 8, 186 (Oct. 1923). Ab. MM 19, 345 (No. 98).
Wherry's name for akermanite.

Oborite. Ab. AM 21, 214 (Mar. 1936). MA 6, 151. CA 32, 889.
Perhaps hexagonal. Grains. Greenish yellow. H about 4.5. G 4.829. "Perhaps a lanthanum, cerium, yttrium, erbium-bearing mineral." Beiyin Obo, Inner Mongolia.

Octahedral borax. Ab. MM 14, 405 (No. 67).

A rhombohedral form of hydrous sodium borate, $Na_2B_4O_7.5H_2O$, simulating regular octahedrons. Lagoons of Tuscany. See also mohavite.

Octophyllite. AM 10, 53 (Mar. 1925). Ab. MM 20, 462 (No. 110). CA 19, 2007.

Winchell's name for the biotite group of micas, corresponding roughly with the dark micas.

Odenite. Ab. MM 21, 572 (No. 122).

A black mica, supposed to contain a new element, odenium. Finbo, Sweden.

Oderite. Ab. MM 21, 573 (No. 122).

Same as odenite.

Odinite. Ab. MM 21, 573 (No. 122).

Same as odenite.

Odite. Ab. MM 21, 573 (No. 122).

Same as odenite.

Oehrnite. Ap. II, 76. Ab. MM 14, 405 (No. 67).

Monoclinic. A rock-forming mineral resembling diallage. Said to be a hydrous silicate of magnesium, iron and calcium. $6(Mg,Fe,Ca)O.6SiO_2.H_2O$, but analysis shows Al_2O_3, 6.74%. Caucasus.

Oliveiraite. DT 693. Ab. AM 4, 41 (Apr. 1919). Ab. MM 18, 384 (No. 87). MA 1, 24. CA 13, 692.

Amorphous. Radially fibrous. Yellowish green. A hydrous titanate of zirconium. $3ZrO_2.2TiO_2.2H_2O$. Caldas District, Minas Geraes, Brazil.

Opaline. AM 16, 396 (Sept. 1931).

"A brecciated impure opal replacement of serpentine." Quicksilver region, Napa County, California.

Oranite. Ab. AM 7, 180 (Oct. 1922). Ab. MM 20, 462 (No. 110).

Alling's name for a group of feldspars consisting of orthoclase (Or) or microcline, and anorthite (An) intergrown in proportions $Or_{70}An_{30}$ to $Or_{20}An_{80}$. A contraction of orthoclase-anorthite.

Orientite. DT 685. Ab. AM 6, 132 (Aug. 1921). MA 1, 201. Ab. MM 19, 345 (No. 98). CA 15, 3261.

Orthorhombic. Minute, radiating, prismatic crystals. Brown to black. H 4.5–5. G 3.05. A hydrous silicate of calcium and manganic manganese. $Ca_4Mn_4(SiO_4)_5.4H_2O$. Oriente Province, Cuba.

Oroseite. DT 680. Ab. AM 12, 96 (Mar. 1927). MA 3, 369. Ab. MM 21, 573 (No. 122). CA 21, 217.

A red-brown alteration product of olivine, probably identical with iddingsite. Orosei, Sardinia.

Orthamphibole. AM 12, 222 (May 1927). Ab. MM 20, 462 (No. 110).

"Group name for orthorhombic amphiboles."

Orthaugite. AM 12, 222 (May 1927). Ab. MM 20, 462 (No. 110).

"Group name for orthorhombic pyroxenes." Variant of orthoaugite.

Orthite-epidote. MA 2, 25.

A mineral intermediate between orthite and epidote. Hundholmen, Norway.

Orthoaugite. Ab. MM 13, 374 (No. 62).

A collective name for orthorhombic pyroxenes.

Orthobromite. Ab. MM 15, 426 (No. 72).

A variety of embolite with composition AgCl.AgBr, as distinct from megabromite and microbromite. Donetz Basin, South Russia.

Orthoferrosilite. MM 24, 226 (No. 151). Ab. MM 24, 529 (No. 157); 24, 619 (No. 158). CA 31, 6145.

End member, $FeSiO_3$, of the enstatite-hypersthene series of orthorhombic pyroxenes. Named from analogy with ferrosilite and clinoferrosilite. See iron-hypersthene. Contains up to 15% of the molecule $MgSiO_3$. Manchuria.

Orthoguarinite. Ab. AM 20, 541 (July 1935). Ab. MM 23, 635 (No. 146). MA 5, 426. CA 30, 6680.

Cesaro's name for an orthorhombic form of guarinite, through superposition of hemitropic lamellae of the monoclinic mineral, clinoguarinite.

Orthomic feldspars. Ab. MM 16, 367 (No. 77).

Triclinic feldspars, which by repeated twinning (orthomimicry) simulate a higher degree of symmetry with rectangular cleavages. They include orthoclase, anorthoclase, and cryptoclase.

Orthopyroxene. Ab. MM 13, 374 (No. 62).

A collective name for orthorhombic pyroxenes.

Orthotaenite. MA 6, 390. MM 24, 620 (No. 158).

Normal taenite, of meteoric origin. A nickeliferous iron. Fe_2Ni.

Oruetite. DT 413. Ab. AM 4, 152 (Dec. 1919). Ab. MM 18, 384 (No. 87). MA 1, 201. CA 13, 2835 and 3117.

Rhombohedral. Lamellar masses. Steel-gray. H 1.5. G 7.6. A bismuth sulfotelluride. Bi_8TeS_4. Very like tetradymite. Serrania de Ronda, Spain.

Orvillite. DT 611. Ab. AM 4, 41 (Apr. 1919). MA 1, 24. CA 13. 692.

An altered zircon. A hydrous silicate of zirconium. $8ZrO_2.6SiO_2.5H_2O$. Caldas District, Minas Geraes, Brazil.

Osanite. CA 21, 40.

Same as osannite.

Osannite. Ap. II, 77. DT 578. Ab. MM 14, 406 (No. 67). MA 3, 83,

A soda-amphibole between riebeckite and arfvedsonite. $H_{10}(Na,K)_{22}(Fe'',Mn,Mg,Ca)_{28}Fe'''_{18}(Si,Ti)_{64}O_{199}$. Cervadaes, Portugal. The "riebeckite" from Quincy, Massachusetts may be osannite.

Osmite. Ab. MM 12, 389 (No. 58); 18, 385 (No. 87).

(*a*) Iridosmine with 40.83%, osmium. (*b*) Native osmium, perhaps present amongst the grains of iridosmine from Brazil and Urals. (*c*) Later applied to an iridosmine from Borneo containing Os, 80%; Ir, 10%; Rh, 5%.

Ostwaldite. Ab. MM 15, 426 (No. 72).

The colloidal form (hydrogel) of silver chloride obtained by precipitation and represented in nature by "buttermilk silver," cerargyrite being the crystalloid form.

Otavite. Ap. II, 77. DT 529. Ab. MM 14, 406 (No. 67).

Rhombohedral. Minute crystals forming crusts. White to reddish. Supposed to be a basic carbonate of cadmium (Cd, 61.5%). Tsumeb, South West Africa.

Otaylite. MA 3, 143. Ab. MM 21, 573 (No. 122).

Trade name for a variety of bentonite clay. A hydrous silicate of magnesium and aluminum. $MgO.Al_2O_3.5SiO_2.8H_2O$. Otay, California.

Ousbekite. Ab. MM 21, 573 (No. 122).

Same as uzbekite.

Owyheeite. DT 449. Ab. AM 6, 82 (Apr. 1921). MA 1, 150. Ab. MM 19, 345 (No. 98). CA 15, 1475.

Probably orthorhombic. Acicular crystals, or fibrous masses. Light steel-gray to silver-white. H 2.5. G about 6.3. A sulfantimonite of silver and lead. Possibly $2Ag_2S.8PbS.5Sb_2S_3$. Earlier called silver jamesonite. Owyhee County, Idaho.

Oxide-meionite. Ab. MM 17, 355 (No. 82).

A hypothetical molecule assumed to explain the composition of the scapolite group of minerals. Doubtful.

Oxoferrite. Ab. MM 23, 635 (No. 146).

Metallic iron with some FeO in solid solution.

Oxy-apatite. Ab. MM 16, 368 (No. 77). CA 26, 5038.

Same as voelckerite.

Oxyhornblende. AM 17, 472 (Oct. 1932). MA 5, 216. Ab. MM 23, 635 (No. 146). CA 27, 2652.

Name proposed, as a substitute for "basaltic hornblende," for dark-brown hornblende of volcanic origin in which part of the ferrous iron has been changed to ferric iron.

Oxykertchenite. CA 1, 1835.

Crystals like those of paravivianite. H 3.5. G 2.65. A brown phosphate derived from kertchenite by oxidation. A hydrous phosphate of manganese, magnesium, calcium, and iron. $(Mn,Mg,Ca)O.4Fe_2O_3.3P_2O_5.21H_2O$. See oxykertschenite.

Oxykertschenite. Ap. III, 57 and 83. DT 732. Ab. MM 15, 426 (No. 72).

An alteration product of kertschenite and paravivianite, often pseudomorphous after the latter. Brown. H 3.5. G 2.65. A hydrous phosphate of iron, with small amounts of manganese, magnesium, and calcium. $(Mn,Mg,Ca)O.4Fe_2O_3.3P_2O_5.21H_2O$. Straits of Kertsch, Crimea, Russia.

Oxymagnite. **AM 16, 270 (June 1931). MA 4, 250 and 502. Ab. MM 22, 626 (No. 134).**

Name suggested for "oxydized magnetite," also called "ferromagnetic ferric oxide" and maghemite. Bushveld igneous complex, South Africa.

Oyamalite. **DT 610. Ab. AM 11, 137 (May 1926). MA 3, 9. Ab. MM 21, 573 (No. 122). CA 20, 563.**

Tetragonal. Radial aggregates. Dark green or brown. H 7.5. G 4.1. A variety of zircon containing "a considerable amount of phosphoric acid in addition to rare earths." Oyama, Japan.

P

Pacificite **(Barth). CA 29, 5779.**

"Should be stricken out."

Paigeite. **Ap. II, 78; III, 57. DT 743. Ab. MM 15, 426 (No. 72). CA 2, 1403; 4, 2083; 5, 654.**

An aggregate of fibers, appearing foliated. Coal-black. A hydrous borate of ferrous and ferric iron and tin. $30FeO.5Fe_2O_3.SnO_2.6B_2O_3.5H_2O$. May be a mixture of hulsite and an iron borate. Brooks Mt., Seward Peninsula, Alaska.

Palacheite. **Ap. II, 19 and 78. AM 16, 397 (Sept. 1931). Ab. MM 13, 374 (No. 62). MM 14, 122 (No. 64).**

Monoclinic. Loosely coherent aggregates of crystals. Brick-red. A hydrous sulfate of magnesium and iron. $2MgO.Fe_2O_3.4SO_3.15H_2O$. Knoxville, California. Later proved to be identical with botryogen.

Palaeoleucite. **Ab. MM 14, 406 (No. 67).**

The original mineral of pseudoleucite. See soda-leucite.

Palaite. **Ap. III, 57. DT 720. Ab. MM 16, 368 (No. 77).**

Monoclinic (?). Crystalline masses. Flesh-pink. G 3.14–3.20. A hydrous phosphate of manganese. $5MnO.2P_2O_5.4H_2O$. Derived from the alteration of lithiophilite, and itself alters into hureaulite. Pala, San Diego County, California.

Paleo-albite. **Ab. MM 16, 368 (No. 77).**

The original mineral, scapolite, of the paramorphs of albite after scapolite. Norway.

Paleo-amphibole. Ab. MM 16, 368 (No. 77).
The original mineral, pyroxene, of the paramorphs of amphibole after pyroxene.

Paleo-calcite. Ab. MM 16, 368 (No. 77).
The original mineral, aragonite, of the paramorphs of calcite after aragonite.

Palladium amalgam. DT 407. Ab. AM 10, 333 (Sept. 1925). AM 13, 494 (Sept. 1928). CA 19, 3075.
Isometric. White. G 13.48–15.82. A palladium-mercury amalgam. (Pd,Hg). Potaro River, British Guiana. See also potarite.

Palmerite. Ap. II, 78. DT 724. Ab. MM 14, 406 (No. 67).
Amorphous. A white powder occurring under bat guano. A hydrous phosphate of aluminum and potassium. $HK_2Al_2(PO_4)_3.7H_2O$. From a cave at Salerno, Italy.

Palmierite. Ap. II, 78. DT 769. Ab. AM 7, 195 (Nov. 1922); 9, 34 (Feb. 1924). MA 1, 216. Ab. MM 14, 406 (No. 67). CA 1, 2225; 2, 3220.
Rhombohedral. Microscopic plates. White. G 4.5. Sulfate of potassium, sodium, and lead. $(K,Na)_2Pb(SO_4)_2$. Eruption of April, 1906, Vesuvius, Italy.

Pantellarite. Ab. MM 12, 389 (No. 58).
The feldspar of Pantellaria, later called anorthoclase.

Parabayldonite. DT 727. Ab. AM 7, 181 (Oct. 1922). MA 1, 203. Ab. MM 19, 346 (No. 98).
Cellular masses and pseudomorphous crusts. Greenish. G about 5.5. A basic hydrous arsenate of copper and lead. $(Cu,Pb)_3As_2O_8.(Cu,Pb)(OH)_2.\frac{1}{2}H_2O$. Differs from bayldonite in containing slightly less water. Tsumeb, South West Africa.

Paracelsian. Ap. II, 78; III, 58. DT 540. Ab. MM 14, 406 (No. 67).
Grains. Pale yellow. H 6. G 3.325. A barium and aluminum silicate. $BaAl_2Si_2O_8$. A variety of celsian. Candoglia, Piedmont, Italy.

Paracoquimbite. Ab. AM 19, 287 (June 1934); 21, 332 (May 1936). MA 5, 390; 6, 149. Ab. MM 23, 635 (No. 146). CA 28, 729.
A rhombohedral form of coquimbite. Pale violet. G 2.109–2.117. A hydrous sulfate of iron, dimorphous with hexagonal coquimbite. $Fe_2(SO_4)_3.9H_2O$. Chile. A siskin-green incrusta-

tion on phyllite at Troja, near Prague, Czechoslovakia, is given the same name, see Ab.MM 19, 346 (No. 98).

Paragite. **Ab. MM 12, 389 (No. 58).**
Same as corallinerz, DS p. 67.

Parahopeite. **Ap. II, 78. DT 719. MM 15, 21 (No. 68). Ab. MM 15, 427 (No. 72). CA 2, 1676.**
Triclinic. Minute tabular or prismatic crystals; fan-shaped aggregates. Colorless. H 3.75. G 3.22–3.31. A hydrous zinc phosphate. $Zn_3P_2O_8.4H_2O$. Broken Hill, Northern Rhodesia; Salmo, British Columbia.

Paralaurionite. **Ap. I, 50; II, 79; III, 58. DT 467. MM 12, 108–110 (No. 55); 12, 183 (No. 56). Ab. MM 12, 389 (No. 58). CA 2, 1946.**
Monoclinic. Usually in pseudo-orthorhombic, prismatic crystals. White. G 6.05. An oxychloride of lead. $Pb(OH)_2.PbCl_2$. In the ancient slags of Laurium, Greece. Rafaelite is the same mineral, but from Chile.

Paramontmorillonite. **Ap. III, 58. Ab. MM 15, 427 (No. 72). CA 2, 1403; 10, 581.**
Fibrous-asbestiform. A mineral of the paligorskite group, near to montmorillonite. A hydrous silicate of aluminum. $H_2Al_2Si_4O_{12}.5H_2O$. Russia; Finland; etc.

Para-oranite. **MM 24, 613 (No. 158). Journal of Geology 21, 234–254.**
"A perthitic feldspar, the composition of the two kinds taken together would range in composition from 70% down to 55%, the rest being composed of albite with a minimum of 10%, and the remainder being anorthite." Alling.

Paraperthite. **MM 24, 613 (No. 158). Journal of Geology 21, 234–254.**
"A perthitic feldspar, the composition of the two kinds taken together would range in composition from 70% down to 55%, the rest being composed of anorthite with a minimum of 10%, and the remainder albite." Alling.

Parasepiolite. **Ap. III, 58. DT 679. AM 16, 231–236 (June 1931). MA 5, 334. Ab. MM 15, 427 (No. 72). CA 2, 1403; 27, 3167.**
A fibrous variety of sepiolite. G 2.08. An acid silicate of magnesium. $H_8Mg_2(SiO_4)_3$. Madagascar; Tuscany; Styria; Grant County, New Mexico.

Paratacamite. Ap. II, 79; III, 58. DT 466. MM 14, 170–177 (No. 65). Ab. MM 14, 406 (No. 67). CA 1, 1243.

Rhombohedral. Bright green. H 3. G 3.74. A hydrous oxychloride of copper. $Cu_2Cl(OH)_3$. Shown to be a twinned atacamite. Sierra Gorda and San Cristobal, Chile.

Parathenardite. Ab. MM 19, 346 (No. 98).

Same as metathenardite.

Paraurichalcite. DT 527. Ab. AM 7, 122 (Oct. 1922). MA 1, 203. Ab. MM 19, 346 (No. 98). CA 16, 3285.

Botryoidal or earthy. Bluish green. A basic carbonate of copper and zinc. Between $3RCO_3.4R(OH)_2$ and $4RCO_3.5R(OH)_2$, with R = Cu:Zn = 2:1 to 3:2. Probably a zinciferous malachite. Tsumeb, South West Africa.

Paravauxite. DT 730. Ab. AM 7, 108 (June 1922). MA 2, 148. Ab. MM 20, 463 (No. 110). CA 16, 3454.

Triclinic. Small, prismatic crystals. Colorless. H 3. G 2.30. A basic, hydrous phosphate of iron and aluminum. $FeO.Al_2O_3.P_2O_5.5H_2O + xH_2O$. Llallagua, Bolivia.

Paravivianite. Ap. II, 79; III, 58. DT 721. Ab. MM 14, 406 (No. 67). CA 1, 1835.

Crystalline aggregates. Bright blue. H 2. G 2.66. A variety of vivianite with part of the iron replaced by magnesium and manganese. $(Fe,Mn,Mg)_3P_2O_8.8H_2O$. South of Kertsch, Crimea, Russia.

Parawollastonite. Ab. AM 22, 70 (Jan. 1937). MA 6, 260. CA 30, 2137.

Monoclinic. Calcium metasilicate. $CaSiO_3$. Wollastonite, with same composition, has been shown to be triclinic. Found in ejected blocks. Vesuvius, Italy; Crestmore, California.

Paredrite. DT 499. Ab. AM 1, 53 (Sept. 1916). Ab. MM 18, 385 (No. 87). MA 1, 256. CA 10, 1623.

Pebbles ("favas"). Compact. Black. G 3.97–4.08. Titanium dioxide, differing from rutile in containing 0.6% water. Compare doelterite. Minas Geraes, Brazil.

Parianite. Ap. II, 79. Ab. MM 12, 389 (No. 58).

Asphaltum from Pitch Lake, Trinidad.

Parkerite. **Ab. AM 23, 64 (Jan. 1938). MA 6, 440. CA 32, 885.**
Monoclinic. Creamy white with faint mauve tint. Marks paper and resembles molybdenite, but cleaves into rhomboidal plates. A nickel sulfide. Ni_2S_3 or NiS_2. Insizwa Range, South Africa.

Parorthoclase. **Ab. MM 12, 389 (No. 58).**
Same as anorthoclase.

Parryite. **MA 5, 97. Ab MM 23, 635 (No. 146).**
A hydrous silicate of calcium. Kimberley, South Africa.

Parsettensite. **DT 604. Ab. AM 10, 107 (Apr. 1925). AM 13, 347–348 (July 1928). MA 2, 251. Ab. MM 20, 463 (No. 110). CA 18, 3336; 31, 2129.**
Massive, somewhat micaceous. Copper-red. G 2.59. A hydrous silicate of manganese. $3MnO.4SiO_2.4H_2O$. Parsettens Alp, Val d'Err, Grisons, Switzerland; Italy.

Parsonsite. **DT 736. Ab. AM 8, 150 (Aug. 1923). MA 2, 50; 3, 233. Ab. MM 20, 463 (No. 110). CA 17, 1776.**
Monoclinic or triclinic. Earthy or minutely crystalline. Pale brown. G 6.23. A hydrous phosphate of uranium and lead. $2PbO.UO_3.P_2O_5.H_2O$. Kasolo, Katanga, Belgian Congo; Wölsendorf, Bavaria, Germany.

Pascoite. **Ap. III, 58. DT 726. Ab. MM 17, 355 (No. 82). CA 8, 2992.**
Monoclinic. In grains and thin plates. Orange. H 2.5. G 2.46. A hydrous calcium vanadate. $2CaO.3V_2O_5.11H_2O$. Minasragra, Peru; Montrose County, Colorado.

Patagosite. **Ab. AM 6, 140 (Sept. 1921); 6, 176 (Dec. 1921). MA 1, 257. Ab. MM 19, 346 (No. 98).**
"A decrepitating variety of calcite," "the material of certain fossils (crinoids, belemnites, echinoderm spines)."

Paternoite. **DT 742. Ab. AM 6, 94 (Apr. 1921). MA 1, 149. Ab. MM 19, 346 (No. 98). CA 15, 1476.**
Orthorhombic. Minute plates; fine granular. White. G 2.11. A hydrous borate of magnesium. $MgB_8O_{13}.4H_2O$. Monte Sambuco, Sicily, Italy.

Patronite. Ap. II, 79. DT 413. Ab. MM 14, 407 (No. 67). CA 1, 158 and 2070.

Amorphous. Black. Occurs intimately mixed with quisqueite and bravoite as the chief vanadium ore at Minasragra, Peru. Possibly a vanadium sulfide, VS_4.

Pearceite. Ap. I, 50; III, 59. DT 456. Ab. MM 11, 224 (No. 52); 11, 333 (No. 53).

Monoclinic. Pseudorhombohedral, tabular crystals, or massive. Black. H 3. G 6.125–6.166. The arsenical variety of polybasite. A sulfarsenite of silver and copper. $9Ag_2S.As_2S_3$, or $8(Ag,Cu)_2S.As_2S_3$. Aspen, Colorado; Marysville and Neihart, Montana; Tintic district, Utah; Coahuila, Mexico; etc.

Pelinite. Ab. MM 18, 385 (No. 87).

A highly plastic and partly colloidal, secondary (transported) clay. Compare clayite.

Pelionite. Ap. I, 51. Ab. MM 12, 389 (No. 58).

Cannel coal from Mount Pelion, Tasmania.

Penfieldite. Ap. I, 51. DT 467. Ab. MM 11, 43 (No. 49); 11, 333 (No. 53). CA 2, 1946.

Hexagonal. In hexagonal prisms. White. An oxychloride of lead. $PbO.2PbCl_2$. Laurium, Greece. Formed by action of sea water on ancient slag.

Penroseite. DT 419. Ab. AM 11, 42 (Feb. 1926); 22, 319–324 (May, 1937). MA 3, 112. Ab. MM 21, 573 (No. 122). CA 20, 1194.

Isometric. Radiating columnar. Lead-gray. H 3. G 6.93. A selenide, chiefly of nickel and copper (with lead and cobalt). $5(Ni,Co)Se_2.2PbSe_2.3CuSe$. Colquechaca, Bolivia.

Pentahydrocalcite. Ap. III, 59. Ab. MM 15, 427 (No. 72). CA 1, 1836.

Mould-like incrustations on chalk-marl. A hydrous calcium carbonate. $CaCO_3.5H_2O$. Nova-Alexandria, Poland. See lublinite.

Percivalite. CA 1, 2862.

A new variety of pyroxene. Elongated, prismatic crystals. Assumed to contain about equal proportions of the jadeite molecule, $NaAlSi_2O_6$ and $NaAlSiO_4$, with small amounts of other pyroxene molecules.

Permutites. AM 7, 18 (Jan. 1923). Ab. MM 16, 368 (No. 77). MM 22, 434 (No. 131).

Trade name for artificial hydrated aluminum-alkali silicates, used in water purification and sugar refining. Approximately $Na_2O.Al_2O_3.2SiO_2.6H_2O$. They have similar compositions to the zeolites, which they resemble further in base exchange. No crystalline structure has been detected, and it is possible that they are amorphous zeolites.

Peruvite. Ab. MM 21, 573 (No. 122).

Same as matildite. Morococha, Peru.

Petterdite. Ap. II, 80. Ab. MM 13, 374 (No. 62).

Described as a new oxychloride of lead, but later proved to be identical with mimetite. Zeehan, Tasmania.

Phenakite. AM 21, 191 (Mar. 1936).

Preferred spelling of phenacite, DS No. 382.

Phenicochroite. AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).

Preferred spelling for phoenicochroite, DS No. 726.

Philipstadite. Ap. I, 53. DT 575. Ab. MM 12, 389 (No. 58). CA 17, 42.

An iron-manganese amphibole, showing anomalous etching figures, pronounced zonal structure, unusual pleochroism, etc. Philipstad, Sweden.

Pholidite. Ab. MM 14, 407 (No. 67).

A more correct form of pholerite, DS p. 685.

Pholidoide. Ab. MM 24, 620 (No. 158). MA 6, 345.

The group of aluminous glauconites grading into normal (ferruginous) glauconite and occurring in sedimentary rocks. Includes skolite and bravaisite. Distinct from pholidolite of Nordenskiöld, DS No. 491.

Phosphoferrite. DT 720. Ab. AM 6, 67 (Mar. 1921); 13, 33 (Jan. 1928). MA 1, 125. Ab. MM 19, 346 (No. 98). CA 15, 1002; 21, 3862.

Orthorhombic. Columnar crystalline. White, pale green, or yellow. H 4–5. G 3.156. A hydrous phosphate of iron, manganese and magnesium. $3(Fe,Mn,Mg)O.P_2O_5.3H_2O$. An iron-rich variety of reddingite. Hagendorf, Bavaria, Germany.

Phosphophyllite. DT 719. Ab. AM 6, 65 (Mar. 1921); 13, 34 (Jan. 1928). MA 1, 125; 3, 274. Ab. MM 19, 347 (No. 98). CA 15, 1001; 21, 3862.

Monoclinic. Colorless to pale blue-green crystals. H 3–4. G 3.081. A hydrous phosphate of zinc, iron and manganese. $3(Zn,Fe,Mn)O.P_2O_5.4H_2O$. Hagendorf, Bavaria, Germany.

Phosphoro-orthite. Ab. MM 23, 635 (No. 146). MA 5, 52.

A variety of orthite in which some phosphorus takes the place of silicon. Same as nagatelite.

Phosphorus. Ap. II, 81. Ab. MM 14, 407 (No. 67).

Occurrence of native phosphorus in a stone meteorite from Saline Township, Kansas, announced by Farrington, 1903.

Phyllite. MM 24, 621 (No. 158).

A general term used by some French authors for the scaly minerals, micas, chlorites, and clays and more recently applied to minerals with a layered crystal structure.

Picroamosite. MA 7, 9. CA 32, 4107.

A variety of orthorhombic amphibole. Fibrous. Greenish gray. A silicate chiefly of magnesium and ferric iron. Malaya Laba, northern Caucasus, Russia.

Picrochromite. Ab. AM 6, 165 (Nov. 1921). MM 19, 100 and 104 (No. 91). Ab. MM 19, 347 (No. 98).

Name proposed for members of the isomorphous spinel—chromite series approaching the composition $MgCr_2O_4$. Present in predominating amount in a "chromite" from Lake Memphremagog, Quebec, Canada.

Picrocollite. Ab. AM 15, 203 (May 1930). MA 3, 545. Ab. MM 21, 574 (No. 122).

Name given to a hypothetical molecule, $H_4MgSi_3O_8.2H_2O$, one of the end members of the pilolite—paligorskite group.

Picrocrichtonite. Ab. MM 14, 407 (No. 67).

Same as picroilmenite. $(Fe,Mg)TiO_3$.

Picroilmenite. Ap. II, 55. Ab. MM 12, 389 (No. 58). MM 14, 165 (No. 65).

Pebbles, rounded or subangular. Black; deep purple-red in thin splinters. H 6. G 4.17–4.25. A magnesian ilmenite, the middle member of the series, geikelite—ilmenite. $(Mg,Fe)TiO_3$,

with Fe:Mg generally 1:1. Balangoda and Rakwana districts, Ceylon. See picrotitanite, DS p. 218.

Pierrepontite. **Ab. AM 11, 52–54 (Mar. 1926). MA 4, 152. Ab. MM 21, 574 (No. 122).**

Species name suggested for black tourmaline (schorl), Pierrepont, New York.

Pietricikite. **Ap. II, 81. Ab. MM 12, 389 (No. 58).**

The correct spelling of zietrisikite, DS p. 999.

Pigeonite. **Ap. II, 81. DT 558. Ab. MM 13, 374 (No. 62).**

A pyroxene intermediate between clinoenstatite and diopside. A mixture of the molecules $(Mg,Fe)SiO_3$ and $CaMg(SiO_3)_2$. A similar compound may occur in the series between clinoenstatite and hedenbergite. It has a small and variable axial angle. Pigeon Point, Minnesota, and elsewhere.

Pilbarite. **Ap. III, 60. Ab. AM 13, 464, 465 (Sept. 1928). Ab. MM 16, 368 (No. 77). CA 5, 850.**

Massive, isotropic. Pebbles. Earthy. Canary-yellow. H 2.5–3. G 4.68. An alteration product of mackintoshite. A hydrous silicate of uranium, lead, and thorium. $UO_3.PbO.ThO_2.2SiO_2.4H_2O$. Pilbara gold field, Western Australia.

Pilite. **Ab. MM 12, 389 (No. 58).**

Same as tinder-ore (jamesonite), DS p. 123.

Pintadoite. **Ap. III, 60. DT 726. Ab. MM 17, 355 (No. 82). CA 9, 426.**

An efflorescence on sandstone. Green. A hydrous vanadate of calcium. $2CaO.V_2O_5.9H_2O$. Canyon Pintado, Utah.

Pirssonite. **Ap. I, 53; III, 60. DT 530. Ab. MM 11, 226 (No. 52); 11, 333 (No. 53).**

Orthorhombic hemimorphic. Prismatic crystals. Colorless to white. H 3–3.5. G 2.352. A hydrous carbonate of sodium and calcium. $Na_2CO_3.CaCO_3.2H_2O$. Borax Lake, California.

Pisekite. **DT 699. Ab. AM 11, 136 (May 1926). MA 2, 335. Ab. MM 20, 463 (No. 110). CA 19, 952.**

Amorphous, but, through pseudomorphism, in crystals similar to monazite. Yellowish to black. H 5.5–6. G 4.032. A titano-niobate of uranium and the rare earths. Pisek, Bohemia. MA 6, 507: "appears to be a variety of ampangabeite, and is

certainly not, as was supposed, a metamict pseudomorph after monazite."

Pizite. **AM 8, 186 (Oct. 1923). Ab. MM 19, 347 (No. 98).**
Same as picite.

Placodine. **Ap. III, 60. DT 415. Ab. MM 17, 355 (No. 82). CA 8, 646.**
The furnace product identical with maucherite.

Plaffeiite. **Ab. AM 15, 203 (May 1930). MA 3, 475. Ab. MM 21 574 (No. 122). CA 22, 4421.**
A fossil resin. Amber-yellow. Plaffeien, Switzerland.

Plancheite. **Ap. II, 81. DT 687. Ab. MM 15, 427 (No. 72). MA 1, 250 and 416; 3, 59 and 460. CA 2, 1675; 26, 4013.**
Orthorhombic. Radially fibrous, spherulitic. Pale blue. H 5.5. G 3.37–3.94. A hydrous silicate of copper, with some calcium. $6(Cu,Ca)O.5SiO_2.2H_2O$. Tantara mine, near Kambove, Belgian Congo; Mindouli, French Congo; Guchab, South West Africa.

Planoferrite. **Ap. I, 54. DT 768. Ab. MM 12, 389 (No. 58).**
Orthorhombic (?). In tabular crystals. Yellowish green to brown. H 3. A hydrous ferric sulfate. $Fe_2O_3.SO_3.15H_2O$. Antofagasta, Chile.

Platynite. **Ap. III, 61. DT 446. Ab. MM 16, 369 (No. 77). CA 8, 2663.**
Rhombohedral. Thin plates. Like graphite. H 2–3. G 7.98. A sulfo-selenite of lead and bismuth. $PbS.Bi_2Se_3$. Falun, Sweden.

Plazolite. **DT 687. AM 5, 183 (Nov. 1920); 22, 861–868 (July 1937). MA 1, 151 and 254. Ab. MM 19, 347 (No. 98). CA 15, 490.**
Isometric. Small dodecahedrons. Colorless to light yellow. H 6.5. G 3.129. A hydrous silicate and carbonate of calcium and aluminum. $3CaO.Al_2O_3.2(SiO_2,CO_2).2H_2O$. Recent studies by Pabst convincingly suggest identity with grossularite. Crestmore, California.

Pleysteinite. **DT 732. AM 8, 186 (Oct. 1923). Ab. MM 19, 347 (No. 98).**
Same as kreuzbergite.

Plumbobinnite. **Ab. MM 12, 390 (No. 58).**
Same as dufrenoysite, DS No. 127.

Plumbocuprite. **Ap. I, 54.**
Same as cuproplumbite, DS p. 51.

Plumbodolomite. **Ab. MM 24, 621. MA 6, 529. CA 32, 4476.**
A variety of dolomite containing some lead. Kreuth, Carinthia.

Plumbojarosite. **Ap. II, 82; III, 61. DT 769. Ab. MM 13, 374 (No. 62). MA 1, 204. CA 4, 2920; 6, 331.**
Rhombohedral. A glistening powder consisting of minute tabular crystals. Dark brown. G 3.67. A basic sulfate of lead and iron. $PbFe_6(OH)_{12}(SO_4)_4$. Isomorphous with jarosite, with lead replacing potassium. Cook's Peak, New Mexico; Beaver County and Tintic district, Utah; Nevada.

Plumbomalachite. **Ab. MM 13, 375 (No. 62).**
Monoclinic. Acicular, twinned crystals of orthorhombic habit. A basic carbonate of copper and lead. $2CuCO_3.Cu(OH)_2.PbCO_3$. Altai Mts.

Plumboniobite. **Ap. III, 61. DT 698. Ab. MM 15, 428 (No. 72). CA 3, 2547.**
Amorphous. Dark brown to black. H 5–5.5. G 4.801–4.813. A niobate of yttrium, uranium, lead, iron, etc. $R''_2Nb_2O_7.R'''_4(Nb_2O_7)_3$, with R'' = Fe, Pb, UO, Ca, and R''' = Gd, Sm, Y, Al. Morogoro, Tanganyika Territory, East Africa.

Plumbosynadelphite. **AM 22, 526–533 (May 1937). MA 6, 488. CA 32, 3304.**
A red coating on synadelphite. H 4. G 3.79. A variety of synadelphite, containing lead (3.24% PbO). Langban, Sweden.

Pöchite. **Ap. III, 61.**
Colloidal. Reddish brown to black. H 3.5–4. G 3.695–3.721. A basic hydrous silicate of iron and manganese. $H_{16}Fe_8Mn_2Si_3O_{29}$. Vareš, Bosnia, Jugoslavia.

Podolite. **Ap. II, 82; III, 61. DT 706. AM 5, 15 (Jan. 1920). Ab. MM 14, 407 (No. 67). CA 1, 1677.**
Hexagonal. Minute prismatic crystals and in spherulites. Yellow. G 3.077. A carbonate and phosphate of calcium. $3Ca_3(PO_4)_2.CaCO_3$. Probably identical with dahllite. See also carbonate apatite. Government of Podolia, South Russia.

Poechite. DT 639. Ab. MM 16, 369 (No. 77). MA 1, 423. CA 5, 3027.

Same as pöchite.

Ponite. Ap. III, 61. DT 520. Ab. AM 5, 136 (July 1920). Ab. MM 16, 369 (No. 77).

An alteration product of ferriferous rhodochrosite. A mixture. $5MnCO_3.FeCO_3$. Rumania. Also called brostenite.

Porcelainite. Ab. MM 23, 636 (No. 146).

"A trade-name for certain kinds of white stoneware"; therefore replaced by porzite, which see.

Porcupine-ore. Ab. MM 13, 375 (No. 62).

Same as histrixite.

Portlandite. Ab. AM 18, 419 (Sept. 1933); 19, 35 (Jan. 1934). MM 23, 419 (No. 142); 23, 636 (No. 146). CA 28, 993.

Hexagonal. Plates. Colorless. H 2. G 2.23. A natural calcium hydroxide. $Ca(OH)_2$. Scawt Hill, County Antrim, Ireland.

Porzite. Ab. MM 23, 636 (No. 146). MA 5, 323.

A fibrous constituent of porcelain, belonging to the fibrolite—mullite series, possibly identical with mullite.

Potarite. DT 407. Ab. AM 10, 333 (Sept. 1925); 13, 494 (Sept. 1928). MA 3, 4. MM 21, 397–406 (No. 120). CA 22, 2125.

Isometric. Octahedral points on fibrous mass. Silver-white. H 3.5. G 15.0–16.1. A natural alloy of palladium and mercury. PdHg. Potaro River, British Guiana.

Potash-aegirine. MM 24, 621 (No. 158).

Artificially prepared potassium ferric metasilicate, $KFe'''(SiO_3)_2$, analogous to egirite with potassium in place of sodium.

Potash-albite. Ab. MM 24, 621 (No. 158).

Albite containing more than 10% of the potash component, $KAlSi_3O_8$.

Potash-andesine. Ab. MM 24, 621 (No. 158).

An andesine containing more than 10% of the potash component, $KAlSi_3O_8$.

Potash-anorthite. Ab. MM 24, 621 (No. 158).

An anorthite containing more than 10% of the potash component, $KAlSi_3O_8$.

Potash-anorthoclase. MA 5, 363. Ab. MM 23, 636 (No. 146).
A triclinic feldspar of the composition $Or_{66}Ab_{31}An_3$. Colorless. G 2.55–2.57. "It corresponds to the hypoperthite of Alling." Taiji, Japan.

Potash-bytownite. Ab. MM 24, 621 (No. 158).
A bytownite containing more than 10% of the potash component, $KAlSi_3O_8$.

Potash-labradorite. Ab. MM 24, 621 (No. 158).
A labradorite containing more than 10% of the potash component, $KAlSi_3O_8$.

Potash-margarite. DT 666. MM 22, 485 (No. 132). Ab. MM 22, 626 (No. 134).
A variety of margarite in which most of the lime is replaced by potash. Identical with lesleyite. Unionville, Pennsylvania.

Potash-montmorillonite. Ab. MM 24, 621 (No. 158).
A clay of the meta-bentonites with high potash (K_2O, 4.60%) and low water. Missouri.

Potash-nepheline. MM 24, 413 (No. 155). Ab. MM 24, 622 (No. 158).
A potash-rich nepheline. Katunga, Ankole, Uganda, East Africa.

Potash-oligoclase. Ab. MM 15, 428 (No. 72); 24, 621 (No. 158).
An oligoclase containing more than 10% of the potash component, $KAlSi_3O_8$. Southern Norway; Kilimanjaro, East Africa.

Potash-richterite. Ab. MM 11, 333 (No. 53).
The original richterite of Michaelson, DS p. 391.

Potassalumite. Ab. MM 21, 574 (No. 122).
Isometric potash-alum; it being suggested that the fibrous kalinite is monoclinic.

Potassio-carnotite. Ab. MM 17, 356 (No. 82).
Same as kalio-carnotite, or ordinary carnotite.

Pouzacite. Ab. MM 16, 369 (No. 77).
A variety of clinochlore, identical with leuchtenbergite. Pouzac, Hautes-Pyrenées.

Prasiolite. Ab. MM 14, 407 (No. 67).
A variant of praseolite, an alteration product of cordierite.

Prasochrome. **Ab. MM 12, 390 (No. 58).**

A dark green alteration product coating chromite. Grecian Archipelago.

Preslite. **Ap. III, 62. DT 715. Ab. MM 16, 369 (No. 77). CA 7, 2031.**

Same as tsumebite.

Přilepite. **Ab. MM 12, 390 (No. 58).**

A resinous substance occurring as reniform crusts on coal shales at Přilep, Bohemia.

Priorite. **Ap. II, 83. DT 699. Ab. MM 14, 407 (No. 67). CA 1, 1375.**

Orthorhombic. Tabular crystals. Brownish black. H 5.5. G 4.8–4.9. A titano-niobate of yttrium, erbium, cerium, and uranium. Isomorphous with blomstrandine and dimorphous with euxenite. Hitterö and elsewhere in Norway; Swaziland, South Africa; Madagascar.

Prixite. **MA 3, 108.**

An alteration product of galena. Saint Prix-sous-Beuvray, France.

Probertite. **DT 745. AM 14, 427–430 (Nov. 1929); 16, 338–341 (Aug. 1931). MA 4, 245; 5, 52. Ab. MM 22, 626 (No. 134). CA 24, 1321.**

Monoclinic. Columnar, radiated. Colorless. H 3–4. G 1.91. A hydrous borate of sodium and calcium. $Na_2O.2CaO.5B_2O_3.10H_2O$. Kramer district, Kern County, California. Independently described as kramerite.

Prolectite. **Ap. I, 36 and 55. DT 629. Ab. MM 11, 139 and 161 (No. 51); 11, 333 (No. 53). MA 3, 153. CA 20, 1776.**

Originally described as a new member of the humite group; later shown to be identical with chondrodite. Ko-mine, Nordmark, Sweden.

Pseudoboléite. **Ap. I, 55; II, 83. DT 467. Ab. MM 11, 333 (No. 53).**

Tetragonal. Found only in parallel growth on boléite, frequently as raised crystalline masses. H 2.4. G 4.85 (?). Probably a basic oxychloride of lead and copper. $3PbCl_2.3Cu(OH)_2.AgCl$. Boléo, Lower California, Mexico.

Pseudo-chalcedonite. Ap. II, 87. Ab. MM 12, 390 (No. 58).
A form of fibrous, anhydrous silica; optically biaxial and negative. G 2.5.

Pseudo-copiapite. Ab. AM 21, 271 (Apr. 1936). MA 6, 149.
A "variety of copiapite, showing slight crystallographic differences from normal copiapite." Sierra Gordo, Chile.

Pseudo-crocidolite. Ab. MM 16, 369 (No. 77).
Quartz pseudomorphous after crocidolite; same as "tiger-eye" and "hawk's-eye."

Pseudodeweylite. Ap. III, 62. Ab. MM 15, 428 (No. 72).
A hydrous magnesium silicate, $Mg_3Si_2O_7.3H_2O$, closely resembling deweylite, $Mg_4Si_3O_{10}.6H_2O$. Chester County, Pennsylvania.

Pseudo-edingtonite. Ab. MM 23, 636 (No. 146).
"Potassium and sodium pseudoedingtonites are base exchange products of edingtonite with a crystal structure different from that of edingtonite."

Pseudo-eucryptite. Ab. MM 17, 356 (No. 82).
An artificial form of $LiAlSiO_4$, dimorphous with eucryptite.

Pseudogaylussite. Ap. I, 55; II, 83. Ab. MM 11, 344 (No. 53); 12, 390 (No. 58). CA 3, 1975.
"Barley-corn" pseudomorphs of calcite after gaylussite, or more probably celestite. Sangerhausen, Thuringia; Preobrazheniye, and Anabara River. See jarrowite.

Pseudoglaucophane. DT 577. Ab. AM 14, 78 (Feb. 1929). MA 4, 16. Ab. MM 21, 574 (No. 122). CA 23, 2125.
"An amphibole of the glaucophane group." Surrounds glaucophane in quartzite. Urals; Switzerland.

Pseudogymnite. AM 12, 222 (May 1927). Ab. MM 20, 463 (No. 110).
Same as pseudodeweylite.

Pseudoheterosite. Ap. III, 62. Ab. MM 16, 369 (No. 77).
An alteration product intermediate between triphylite and heterosite. Hureaux, Haute-Vienne, France.

Pseudo-jade. Ab. MM 14, 408 (No. 67).
A name that may be applied to any mineral resembling jade in appearance, for example, bowenite.

Pseudojadeite. (*a*) **Ap. III, 62 (A. W. G. Bleeck). Ab. MM 15, 428 (No. 72).** (*b*) **Ab. MM 19, 347 (No. 98) (F. W. Clarke).**

(*a*) A mineral similar to jadeite. G 2.577. Tawmaw, Upper Burma. (*b*) Name given to the molecule, $(Ca,Mg,Fe)Al_2(SiO_3)_4$, assumed to be present sometimes in isomorphous replacement with the normal jadeite molecule, $NaAl(SiO_3)_2$.

Pseudo-laumontite. Ab. MM 16, 370 (No. 77).

Pseudomorphs after laumontite. Green. A hydrous silicate of aluminum, iron, magnesium, and potassium. Keweenawan area, Minnesota.

Pseudo-låvenite. Ap. III, 62. Ab. MM 16, 370 (No. 77).

An undetermined mineral resembling laavenite, but differing from it in its optical orientation. Los Islands, west coast of Africa.

Pseudo-manganite. Ab. MM 16, 370 (No. 77). CA 13, 20.

Crystals of manganite altered wholly or partly to pyrolusite.

Pseudomeionite. Ap. II, 83. DT 605. Ab. MM 14, 408 (No. 67).

A mineral having the microscopical characters of meionite, except in possessing a good basal cleavage. It is a feldspathoid. Black Forest, Germany.

Pseudomendipite. DT. 467. Ab. AM 7, 213 (Dec. 1922). MA 1, 121. Ab. MM 19, 348 (No. 98).

Orthorhombic. Stated to be an oxychloride of lead; thought to be $3PbO.PbCl_2$, but this formula is based on a misquoted old analysis.

Pseudomesolite. Ap. II, 83. DT 655. Ab. MM 13, 375 (No. 62). CA 22, 3116.

A zeolite with same composition as mesolite, but differing in optical characters. Colorless to white. Radiating fibrous. Carlton Peak, Minnesota; Ritter Hot Springs, Grant County, Oregon.

Pseudo-orthoclase. AM 19, 287 (June 1934). MA 1, 238. Ab. MM 19, 348 (No. 98).

Crystals of a feldspar resembling orthoclase, but found to be anorthoclase (or sanidine).

Pseudo-ozocerite. Ab. MM 12, 390 (No. 58).

Ozocerite from Central Persia, differing in some respects from Galician ozocerite.

Pseudopalaite. MA 6, 442. CA 32, 888.

Monoclinic. Crust of minute crystals. Flesh-red. G 3.05. An alteration product of lithiophilite. A hydrous phosphate of manganese and iron. $6(Mn,Fe)O.2P_2O_5.5H_2O$. Slightly different from palaite. Mangualde, Portugal.

Pseudoparisite. Ab. MM 12, 390 (No. 58).

Same as cordylite.

Pseudophillipsite. Ap. II, 83. DT 647. Ab. MM 13, 375 (No. 62).

A zeolite agreeing with phillipsite except that it contains less water and loses its water differently on heating. Near Rome, Italy.

Pseudo-pirssonite. Ab. MM 15, 428 (No. 72).

Pseudomorphs resembling pseudogaylussite, from Island of Bornhoem, Denmark. Later suggested that original mineral was struvite and name pseudo-struvite is suggested.

Pseudopyrochroite. DT 508. AM 8, 186 (Oct. 1923). Ab. MM 19, 348 (No. 98).

Same as baeckstromite.

Pseudopyrophyllite. Ap. I, 55. Ab. MM 11, 333 (No. 53).

Orthorhombic. A hydrous silicate of magnesium and aluminum. Possibly $3MgO.4Al_2O_3.9SiO_2.8H_2O$. Urals.

Pseudo-sarcolite. MM 22, 463 (No. 132). Ab. MM 22, 626 (No. 134).

Tetragonal. An artificial product, regarded as one of the constituent molecules of the minerals of the melilite group. A silicate of calcium and aluminum. $3CaO.Al_2O_3.3SiO_2$.

Pseudosillimanite. Ab. AM 20, 315 (Apr. 1935). Ab. MM 23, 636 (No. 146).

Small acicular crystals resembling sillimanite in a black aphanitic rock. Alsace, France; Tierra del Fuego.

Pseudo-struvite. Ab. MM 15, 428 (No. 72).

See pseudo-pirssonite.

Pseudo-topaz. Ab. MM 16, 370 (No. 77).

Quartz simulating topaz. Striegau, Silesia.

Pseudowavellite. DT 730. Ab. AM 12, 232 (May 1927). AM 15, 317 (Aug. 1930). MA 2, 13 and 522. Ab. MM 20, 463 (No. 110). CA 20, 885.

Rhombohedral. Incrustations, stalactites, needles, radiating. White to yellow, colorless. H 5. G 2.92. Essentially a hydrous

phosphate of aluminum and calcium (the German mineral also shows 1.02% yttrium earths). $5CaO.6Al_2O_3.4P_2O_5.18H_2O$. Amberg-Auerbach mine, Bavaria, Germany; near Fairfield, Utah.

Pseudowollastonite. **Ap. II, 83. DT 566. Ab. MM 14, 408 (No. 67); 17, 356 (No. 82). MA 1, 168. CA 1, 28.**

An artificial product of the heating of wollastonite above 1200°C. Probably monoclinic. Earlier called bourgeoisite.

Psilomelanite. **Ab. MM 18, 385 (No. 87).**

Same as psilomelane.

Pufahlite. **DT 458. Ab. AM 11, 168 (June 1926). MA 5, 167. CA 19, 2466.**

Flexible plates. Black. H 2–3. G 5.4. A sulfostannate of lead and zinc. Probably a zinc-bearing variety of teallite. Near Pasna, Bolivia. Name later transferred to a hypothetical end member, $ZnSnS_2$.

Pulleite. **Ab. MM 15, 428 (No. 72).**

Apatite in violet, sheaf-like crystals from San Piero in Campo, Elba, Italy.

Pumpellyite. **DT 641. AM 10, 412 (Nov. 1925); 11, 218 (Aug. 1926). MA 3, 8, and 454. Ab. MM 21, 574 (No. 122). MM 24, 529 (No. 157). CA 20, 1372.**

Orthorhombic. Minute fibers or plates. Bluish green. H about 5.5. G about 3.2. A hydrous silicate of calcium and aluminum. $6CaO.3Al_2O_3.7SiO_2.4H_2O$. Keweenaw County, Michigan; New Zealand; Haiti; California; etc. "Zoisitic epidote," A. C. Lane.

Pungernite. **Ab. MM 12, 390 (No. 58).**

Yellowish brown organic matter from the Silurian of Russia.

Purpurite. **Ap. II, 83; III, 62. DT 724. Ab. MM 14, 408 (No. 67).**

Orthorhombic. Small, irregular masses. Deep red or reddish purple. H 4–4.5. G 3.40. Essentially a hydrous ferric-manganic phosphate. $2(Fe,Mn)PO_4.H_2O$. An alteration product of lithiophilite and triphylite. Pala, California; Hill City, South Dakota; Newry, Maine; Erongo Mts., South West Africa.

Pycnochlorite. Pyknochlorite. **Ap. II, 84. DT 672. Ab. MM 13, 375 (No. 62).**

Compact, cryptocrystalline. Grayish green. H 1–2. G 2.83. A chlorite related to clinochlore, but differing in containing much

more ferrous iron and in its compact texture. Radauthal, Harz, Germany.

Pyralmandite. Ab. MM 21, 574 (No. 122).

A contraction of pyrope and almandite for garnets of intermediate composition.

Pyralspite. Ab. MM 21, 574 (No. 122).

A contraction of the names pyrope, almandite, and spessartite for this series of garnets in which there is complete isomorphous replacement.

Pyribole. Ab. MM 16, 370 (No. 77).

A contraction of the names pyroxene and amphibole. Johannsen.

Pyritogelite. Ab. MM 17, 356 (No. 82). CA 8, 1074.

A colloidal form of pyrite.

Pyrobelonite. DT 715. Ab. AM 5, 87 (Apr. 1920). MA 1, 124. Ab. MM 19, 348 (No. 98). CA 14, 1097.

Orthorhombic. Minute acicular crystals. Fire-red. H 3.5. G 5.377. A basic vanadate of manganese and lead. $4(Mn, Pb)O.V_2O_5.H_2O$. Related to descloizite. Langban, Sweden.

Pyrogelite. CA 8, 1074.

A colloidal form of pyrite.

Pyroxene-perthite. Ab. MM 15, 429 (No. 72).

Lamellar intergrowths of pyroxene of different kinds, as with the feldspars. Also pyroxene-microperthite, pyroxene-cryptoperthite.

Pyroxmangite. Ap. III, 65. DT 565. Ab. MM 17, 356 (No. 82). CA 7, 3947; 31, 7800.

Triclinic. Cleavage masses. Brown. H 5.5–6. G 3.80. A manganese pyroxene. A metasilicate of iron and manganese. $(Fe,Mn)SiO_3$. Sobralite is identical, also iron-rhodonite from slag. Near Iva, South Carolina; Sweden; Scotland; Homedale, Idaho.

Q

Quarfeloids. Ab. MM 20, 464 (No. 110).

"A portmanteau word from quartz, feldspar and feldspathoids." Compare feloids.

Quartzine. Ap. I, 58; II, 87; III, 66. DT 473. Ab. MM 10, 255 (No. 47).

A fibrous form of chalcedony, in which the fibers are elongated perpendicularly to the *c* axis and show optical anomalies. It is a low temperature alpha-quartz.

Quenselite. DT 509.* Ab. AM 11, 218 (Aug. 1926). MA 3, 110. Ab. MM 21, 575 (No. 122). CA 20, 1195.

Monoclinic. Pitch-black crystals. H 2.5. G 6.842. A hydrous basic manganite of lead ("the only basic manganite known"). $2PbO.Mn_2O_3.H_2O$. Langban, Sweden.

Quercyite. Ap. III, 66. Ab. MM 16, 370 (No. 77).

(*a*) A type of phosphorite consisting of an intimate interbanded mixture of colloidal collophanite and an undetermined finely fibrous constituent. G 2.83–2.87. When the crystalline element is optically negative the mixture is called quercyite-alpha, when optically positive, quercyite-beta. Quercy, France. (*b*) Bull. 46, Canada Dept. of Mines, describing what appears to be a new species of H 4.5, G 3.04, composition same as the French material. $3CaO.P_2O_5.CaO.CO_2.H_2O.\frac{1}{2}CaF_2$. Lake François, British Columbia.

Quirogite. Quiroguite. Ap. I, 58. Ab. MM 11, 241 (No. 52); 11, 334 (No. 53).

A supposed tetragonal mineral having the formula $23PbS.3Sb_2S_3$. Probably only an impure galena. Sierra Almagrera, Spain.

Quisqueite. Ap. II, 87; III, 66. DT 398. Ab. MM 15, 429 (No. 72). CA 1, 2070.

Amorphous. Black. Very like a lustrous asphaltum. It is composed chiefly of carbon and sulfur. (C, 43%; S, 46.5%) with very little hydrogen. Occurs with patronite in the Quisque district at Minasragra, Peru.

R

Racewinite. DT 641. Ab. AM 4, 28 (Mar. 1919). Ab. MM 18, 385 (No. 87). MA 1, 23. CA 13, 408.

Crystalline. Bluish green, changing to brownish black. H 2.5. G 1.94–1.98. A hydrous silicate of aluminum and iron. Approximately $2(Al,Fe)_2O_3.5SiO_2.9H_2O$. Bingham, Utah.

Radiofluorite. **MA 5, 52 and 235 and 330. Ab. MM 23, 637 (No. 146).**

A fluorite supposed to contain radium and to be radioactive; later shown that its effect on a photographic plate is due to phosphorescence..

Radiophyllite. **DT 640. Ab. AM 11, 77 (Mar. 1926). MA 2, 341. Ab. MM 20, 464 (No. 110). CA 19, 952.**

Spheres showing radial platy structure. White. H 2–3. G 2.53. A hydrous calcium silicate. $CaSiO_3.H_2O$. Schellkopf, Rhineland, Germany.

Radiotine. **Ap. II, 87. DT 675. Ab. MM 14, 408 (No. 67).**

Fibrous radiating spherical aggregates. Yellow. G 2.70. A hydrous silicate of magnesium. $H_4Mg_3Si_2O_9$. Differs from serpentine in its insolubility in HCl and its higher specific gravity. Dillenburg, Nassau, Germany.

Rafaelite. (*a*) **Ap. II, 87. DT 467. MM 12, 183 (No. 56). Ab. MM 12, 308 (No. 57); 12, 390 (No. 58).** (*b*) **Ab. AM 15, 203 (May, 1930). Ab. MM 21, 575 (No. 122).**

(*a*) Identical with paralaurionite, but from San Rafael mine, Chile. (*b*) A vanadiferous asphaltum. Contains 21–44% V_2O_5. San Rafael, Argentina.

Ramdohrite. **DT 448. Ab. AM 16, 132 (Mar. 1931). MA 4, 341. Ab. MM 22, 626 (No. 134). CA 25, 2940.**

Prismatic to lance-shaped crystals. Dark gray. H 2. G 4.18. A sulfantimonite of silver and lead. $Ag_2S.3PbS.3Sb_2S_3$. Potosi, Bolivia.

Ramsayite. **DT 692. Ab. AM 11, 136 (May 1926); 11, 294 (Nov. 1926); 12, 382 (Oct. 1927). Ab. MM 20, 464 (No. 110). MA 2, 250; 3, 111. CA 18, 3337.**

Orthorhombic. Large crystals. Dark brown to black. H 6. G 3.43. A titano-silicate of sodium. $Na_2O.2SiO_2.2TiO_2$. A variety of lorenzenite, partly lacking its zirconia. Kola Peninsula, Russian Lapland.

Ramzaite. **CA 32, 1619.**

Same as ramsayite.

Ranciéite. DT 509. Ab. AM 9, 20 (Jan. 1924). Ab. MM 14, 406 (No. 67). MA 2, 144. CA 16, 1058.

A variety of psilomelane. G 3.25–3.30. A hydrous manganese oxide. $MnO_2.2MnO.2H_2O$, with Mn″ partially replaced by Fe, Ca, Na_2 and K_2. Rancié, Ariège, France.

Ransätite. Ap. I, 58. Ab. MM 11, 334 (No. 53).

A supposed new mineral, later shown to be an impure manganesian garnet.

Ransomite. DT 765. AM 13, 221 (June 1928). MA 4, 11. Ab. MM 21, 575 (No. 122).

Orthorhombic. Slender prisms. Sky-blue. H 2.5. G 2.632. A hydrous sulfate of copper, iron, and aluminum. $CuO.(Fe,Al)_2O_3.4SO_3.7H_2O$. Jerome, Arizona.

Raphaelite. CA 17, 1204.

"A carbonized asphalt mineral resembling coal." Argentina. Compare rafaelite (*b*).

Raphite. Ab. MM 11, 334 (No. 53).

Same as ulexite.

Rasorite. DT 744. MA 4, 244. Ab. MM 22, 627 (No. 134).

Identical with kernite, which name has published priority, but the borax company had earlier called the mineral rasorite and has used that as a trade name. Kramer, Kern County, California.

Raspite. Ap. I, 58; II, 87. DT 772. Ab. MM 12, 47 (No. 54); 12, 390 (No. 58).

Monoclinic. Small, elongated, tabular crystals, usually twinned. Brownish yellow. Intense adamantine luster. H 2.5–3. Lead tungstate, like stolzite. $PbWO_4$. Broken Hill, New South Wales.

Rathite. Ap. I, 58; II, 88; III, 67. DT 448. Ab. MM 11, 225 (No. 52); 11, 334 (No. 53). MM 13, 77–85 (No. 59); 16, 121 (No. 74).

Monoclinic. Twinned prismatic crystals. Lead-gray. H 3. G 5.41. A sulfarsenite of lead. $3PbS.2As_2S_3$. Binnenthal, Switzerland.

Rauvite. DT 736. Ab. AM 8, 187 (Oct. 1923); 10, 133 (May 1925). MA 2, 420. Ab. MM 20, 464 (No. 110). CA 19, 453.

Metacolloidal (?). Compact. Purplish black. A hydrous vanadate of calcium and uranium. $CaO.2UO_3.6V_2O_5.20H_2O$. Temple Mt., Emery County, Utah.

Reaumurite. **AM 7, 64 and 65 (Apr. 1922); 9, 175 (Aug. 1924). MA 1, 211. Ab. MM 16, 371 (No. 77). CA 10, 1311.**

Orthorhombic. A volcanic, crystalline, fibrous material. A silicate of calcium and sodium. $(Ca,Na_2)Si_2O_5$. Produced by the action of volcanic heat on glass vessels in the houses at St. Pierre, Martinique, in the eruption of Mt. Pelée, 1902; also in the eruption of Vesuvius, Italy in 1906.

Refdanskite.

Also spelled revdanskite, revdinite, revdinskite. An impure hydrous nickel silicate from Revda (= Revdinsk), Urals.

Renardite. **DT 736. Ab. AM 14, 244 (June 1929). MA 4, 15. Ab. MM 22, 627 (No. 134). CA 23, 5440.**

Orthorhombic. Minute rectangular prisms. Yellow. G over 4. A hydrous phosphate of uranium and lead. $PbO.4UO_3.P_2O_5.9H_2O$. Katanga, Belgian Congo.

Reniforite. **DT 455. Ab. AM 11, 218 (Aug. 1926). MA 3, 114. Ab. MM 21, 575 (No. 122).**

Reniform aggregates. G 6.451. A sulfarsenite of lead. $5PbS.As_2S_3$. Identical with jordanite. Correctly spelled reniformite. Mutsu, Japan.

Reniformite. **MA 3, 114. MM 24, 622 (No. 158).**

Correct spelling of reniforite.

Reniphorite. **CA 22, 3375.**

Same as reniforite.

Repossite. **Ab. AM 20, 740 (Oct. 1935). MA 6, 52. CA 30, 6676.**

Salmon-pink. H 4.5–5. G 3.72–3.76. A phosphate of iron and manganese. $(Fe,Mn)_3(PO_4)_2$. Identical with graftonite. Olgiasca, Lake Como, Italy.

Retzian. **Ap. I, 59. DT 718. Ab. MM 11, 166 (No. 51); 11, 334 (No. 53).**

Orthorhombic. Prismatic or thick, tabular crystals. Chocolate to chestnut-brown. H 4. G 4.15. A basic arsenate of the yttrium earths, manganese, and calcium. Near flinkite. Moss mine, Nordmark, Sweden.

Revdanskite. Revdinite. Revdinskite.

See refdanskite.

Reyerite. **Ap. II, 88. DT 641. Ab. MM 14, 409 (No. 67). CA 1, 1529.**

Rhombohedral. Thin hexagonal plates, in radiating aggregates. H 3.5. G 2.499–2.578. A hydrous silicate of calcium with a little aluminum. "A micaceous zeolite indistinguishable in appearance from gyrolite and zeophyllite." Greenland.

Rhodoarsenian. **Ap. I, 59. Ab. MM 11, 334 (No. 53).**

Spherules. Rose-red. H 4. A basic hydrous arsenate of manganese, calcium, and magnesium. Regarded as the arsenic compound corresponding to ferrostibian. Sjö mine, Örebro, Sweden.

Rhodolite. **Ap. I, 59. DT 593. Ab. MM 12, 133 (No. 55); 12, 145 (No. 56); 12, 391 (No. 58).**

A rose-red to purplish red variety of garnet, occurring as rolled pebbles in Mason's Branch and elsewhere in North Carolina. G 3.838. Composition corresponds with two molecules of pyrope, $Mg_3Al_2(SiO_4)_3$, and one of almandite, $Fe_3Al_2(SiO_4)_3$.

Rhodophosphite. **Ap. I, 59. Ab. MM 11, 334 (No. 53).**

Hexagonal. Cleavable crystalline. White or pale red. A phosphate of calcium (manganese and iron) with chloride and sulfate. Probably simply apatite. Wermland, Sweden.

Rhodusite. **Ap. I, 59; II, 88. DT 577. Ab. MM 11, 334 (No. 53). MA 2, 221. CA 2, 1108; 9, 2046.**

Classified by Dana as a fibrous, asbestus-like variety of glaucophane. Regarded by Murgoci as an end member of the glaucophane series, rich in iron. Four types of crocidolite, including one from Griqualand, are classed under the species rhodusite. Island of Rhodes.

Rhomboclase. **Ap. III, 67. DT 767. Ab. MM 15, 429 (No. 72). MA 4, 8. CA 16, 2653.**

Orthorhombic. Rhombic plates. Colorless, gray. H 2. A hydrous acid ferric sulfate. $Fe_2O_3.4SO_3.9H_2O$. Smolnik, Czechoslovakia (formerly Szomolnok, Hungary).

Rhönite. **Ap. II, 88; III 67. DT 579. Ab. MM 15, 429 (No. 72). CA 2, 521.**

Triclinic. A constituent of basaltic rocks. Dark brown. G 3.58 (?). A titano-silicate of ferrous and ferric iron, aluminum, magnesium, calcium, and alkalies. $(Ca,Na_2,K_2)_3Mg_4Fe''_2Fe'''_2$-

$Al_4(Si,Ti)_6O_{30}$. It is a triclinic amphibole close to enigmatite. Various localities in Germany; also in Bohemia.

Rickardite. **Ap. II, 89. DT 415. Ab. MM 13, 375 (No. 62).**
Massive. Deep purple, resembling tarnished bornite. H 3.5. G 7.54. A copper telluride. Cu_4Te_3. Vulcan and Bonanza, Colorado; Warren, Arizona; Salvador.

Ricolite. **Ap. II, 89. DT 675. Ab. MM 15, 429 (No. 72).**
A trade name for a rich green, banded serpentine. New Mexico.

Rilandite. **AM 18, 195–205 (May 1933). Ab. MM 23, 637 (No. 146). MA 5, 293. CA 28, 1307.**
Massive. Angular, platy, pitch-like masses. Brownish black. H 2–3. A hydrous silicate of chromium and aluminum. Near wolchonskoite. Utah-Colorado carnotite region.

Rimpylite. **DT 576. Ab. AM 11, 167 (June 1926). MA 2, 221. Ab. MM 20, 464 (No. 110). CA 18, 42.**
Green or brown. An amphibole rich in sesquioxides, poor in magnesia.

Rinkolite. **DT 691. AM 11, 295 (Nov. 1926). Ab. AM 14, 440 (Nov. 1929). MA 3, 236. Ab. MM 21, 575 (No. 122). CA 21, 3583.**
Monoclinic. Large, bladed crystals. Brown, green, or yellow. H 5. G 3.40. A titano-silicate of cerium, calcium, sodium, and strontium, with fluorine. Near rinkite; probably its crystalline form. Kola Peninsula, Russian Lapland.

Rinneite. **Ap. II, 89; III, 67. DT 464. Ab. MM 15, 430 (No. 72). CA 3, 765 and 1263.**
Rhombohedral. Coarse, granular masses. Colorless, rose, violet or yellow. H 3. G 2.35. An anhydrous chloride of ferrous iron, potassium, and sodium. $FeCl_2.3KCl.NaCl$. From the salt deposits of Harz Mts., Germany.

Risörite. **Ap. III, 68. DT 695. Ab. MM 15, 430 (No. 72). MA 3, 346; 4, 240. CA 3, 765; 24, 1059.**
Tetragonal. Usually massive. Yellow-brown. H 5.5. G 4.179. Essentially a titano-niobate of the yttrium metals. Probably a titaniferous variety of fergusonite. Risör, southern Norway.

Rivaite. Ap. III, 68. DT 567. AM 7, 64–66 (Apr. 1922). Ab. MM 16, 371 (No. 77). CA 9, 774; 25, 2390.

Described as a new species, but later shown to be "minute needles of wollastonite embedded in glass." In loose nodules. Vesuvius, Italy.

Riversideite. DT 641. Ab. AM 3, 19 (Feb. 1918). Ab. MM 18, 386 (No. 87). MA 1, 21. CA 12, 462.

Orthorhombic (?). Fibrous veinlets and compact. White. H 3. G 2.64. A hydrous calcium silicate. $2CaSiO_3.H_2O$. Crestmore, California.

Rizopatronite. Ap. III, 68. DT 413. Ab. MM 15, 430 (No. 72).

Same as patronite.

Robellazite. Ap. II, 89. Ab. MM 12, 391 (No. 58).

Concretionary masses. Black. Contains V, Nb, Ta, W, Al, Fe, Mn. Occurs with carnotite in Colorado.

Roeblingite. Ap. I, 60. DT 584. AM 14, 1–18 (Jan. 1929); 16, 455–460 (Oct. 1931). Ab. MM 11, 334 and 343 (No. 53). MA 5, 133.

Orthorhombic (?). Compact, fibrous. White. H 3. G 3.433. A basic hydrous silicate and sulfate of lead and calcium. $2PbSO_4.(Ca,Mn,Sr)_7H_{10}(SiO_4)_6$, analogous to hauynite. Franklin, New Jersey; Langban, Sweden.

Roemerite. AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).

Preferred spelling for römerite, DS No. 778.

Rogersite. DT 767. AM 13, 225 (June 1928). Ab. MM 21, 575 (No. 122).

Monoclinic. Aggregates of minute silky fibers. White. G 2.611. A hydrous sulfate of ferric iron. $Fe_2O_3.3SO_3.6H_2O$. Jerome, Arizona. The name rogersite being preoccupied (DS p. 746) was later replaced by lausenite (but Dr. Austin Flint Rogers was subsequently honored by the naming of austinite after him).

Romanèchite. DT 495. AM 8, 210 (Nov. 1923). CA 25, 3274.

First supposed to be a crystallized variety of psilomelane. "Consists of hollandite with an unidentified mineral." Lacroix "showed that barium is present in notable amount in addition to manganese." Possible formula: $H_2(Mn,Ba)Mn_4O_{10}$. Romanèche, France.

Romanite. **Ap. II, 90. Ab. MM 15, 430 (No. 72). MA 4, 296.**
Amber from Rumania. Yellow, black, green. G 1.03–1.12. Also spelled rumänite, DS p. 1004.

Rosasite. **Ap. II, 89. DT 528. AM 6, 166 (Nov. 1921). Ab. MM 15, 430 (No. 72). MA 2, 240. CA 4, 1959.**
Orthorhombic. Fibrous masses or coatings, minute botryoidal to mammillary. Pale to bright green or sky-blue. H 4.5. G 4.07. A basic carbonate of copper and zinc. $(Cu,Zn)CO_3$.-$(Cu,Zn)(OH)_2$. "A zinciferous malachite," or "an orthorhombic modification of $RCO_3.R(OH)_2$, dimorphous with malachite." Rosas mine, Sulcis, Sardinia.

Roscherite. **Ap. III, 68. DT 734. Ab. MM 17, 356 (No. 82). CA 10, 31.**
Monoclinic. Crystals. Dark brown. H 4.5. G 2.916. A basic hydrous phosphate of aluminum, manganese, calcium, and iron. $(Mn,Ca,Fe)_2Al(OH)P_2O_8.2H_2O$. Near Ehrenfriedersdorf, Saxony, Germany.

Rose garnet. **Ab. MM 12, 391 (No. 58).**
(*a*) Name incorrectly ascribed (1898) to rhodolite. (*b*) Trade name (1891) for a decorative stone consisting chiefly of rosolite garnet, vesuvianite, and wollastonite, from Xalostoc, Morelos, Mexico.

Rosenite. **Ab. MM 12, 391 (No. 58).**
Same as plagionite.

Rosickyite. **Ab. AM 17, 251 (June 1932). MA 5, 49. Ab. MM 23, 637 (No. 146). CA 26, 1879.**
Monoclinic. Minute crystals. "The natural gamma-sulfur modification." Colorless to pale yellow, with greenish cast. H low. G 2.075. Havirna, Moravia, Czechoslovakia.

Rosieresite. **Ap. III, 68. DT 724. Ab. MM 16, 371 (No. 77). CA 8, 3172.**
Stalactites. Yellow to brown. G 2.2. A hydrous phosphate of aluminum containing some lead (PbO, 10%) and copper (CuO, 3%). Rosières mine, near Carmaux, Tarn, France.

Rosolite. **Ap. II, 90. DT 596. Ab. MM 14, 409 (No. 67).**
A rose-pink variety of grossularite garnet. Also called landerite and xalostocite. Xalostoc, Morelos, Mexico.

Rossite. DT 725. Ab. AM 11, 66 (Mar. 1926); 13, 160 (Apr. 1928). MA 3, 239; 3, 470. Ab. MM 21, 575 (No. 122). CA 22, 1119.

Triclinic. Minute plates. Yellowish with glassy centers. H 2–3. G 2.45. A hydrous calcium vanadate. $CaO.V_2O_5.4H_2O$. San Miguel County, Colorado.

Rosstrevorite. Ab. MM 12, 391 (No. 58).

Fibrous stellated epidote from near Rosstrevor, County Down, Ireland.

Roumänite. Ap. I, 60. Ab. MM 12, 391 (No. 58). CA 4, 3180.

See rumänite, DS p. 1004.

Roweite. AM 22, 301–303 (Apr. 1937). MA 6, 488. CA 31, 8451; 32, 889.

Orthorhombic. Lath-shaped crystals. Light brown. H about 5. G 2.92. A hydrous borate of manganese and calcium. $H_2MnCa(BO_3)_2$. Franklin, New Jersey. Differs from sussexite in containing calcium and in its optical properties.

Rubber-sulphur. Ab. AM 7, 213 (Dec. 1922). MA 1, 63. Ab. MM 19, 348 (No. 98).

"Classed as a variety of sulfur, amorphous, now considered a definite mineral species." Wherry. Province of Oshima, Japan.

Rubidium-microcline. Ab. MM 17, 357 (No. 82).

The microcline (amazonstone) of the Ilmen Mts., Urals, was found to contain 3.12% rubidium oxide, corresponding to 10.89% of the silicate $RbAlSi_3O_8$.

Russellite. AM 23, 121 (Feb. 1938). MM 25, 41–55 (No. 161).

Tetragonal. Fragments; compact, fine grained. Pale yellow. H 3.5. G 7.26–7.54. An isomorphous mixture of oxides of bismuth and tungsten. "A mixed crystal of Bi_2O_3 and WO_3," with empirical formula $(Bi_2,W)O_3$. Castle-an-Dinas wolfram mine, St. Columb Major, Cornwall, England.

Ruthenosmiridium. CA 31, 3827.

Hexagonal. White. G 18.99. A ternary alloy of iridium, osmium, ruthenium (and rhodium). RuOsIr. Hokkaido, Japan.

Rutherfordine. Ap. II, 90. DT 526. Ab. MM 14, 409 (No. 67). CA 1, 708; 3, 2422.

Orthorhombic (?). An ocher resulting from the alteration of uraninite. Yellow. G 4.82. Uranyl carbonate. $UO_2.CO_3$.

Uruguru Mts., Tanganyika Territory, East Africa. Not to be confused with rutherfordite, DS p. 730.

S

Sabalite. **Ab. MM 18, 386 (No. 87). MA 2, 187.**
A trade name for a "banded variscite." Same as trainite. Near Manhattan, Nevada. May be banded vashegyite and laubanite (?).

Sahlinite. **Ab. AM 20, 315 (Apr. 1935). MA 6, 51. CA 29, 1364.**
Monoclinic. Aggregates of thin scales. Sulfur-yellow. H 2–3. G 7.95. A basic chloro-arsenate of lead. $12PbO.As_2O_5.2PbCl_2$. Langban, Sweden.

Salammoniac. **AM 21, 189 (Mar. 1936).**
Preferred spelling for sal-ammoniac, DS No. 168.

Salammonite. **Ab. MM 20, 464 (No. 110). AM 8, 52 (Mar. 1923); 21, 189 (Mar. 1936).**
Discredited name of salammoniac.

Saleite. **Ab. AM 19, 36 (Jan. 1934). MA 5, 292. Ab. MM 23, 637 (No. 146). CA 28, 5372.**
Orthorhombic. Square plates. Lemon-yellow. H 2–3. G 3.3. A hydrous phosphate of magnesium and uranium. $MgO.UO_3.P_2O_5.8H_2O$. The magnesium analogue of autunite. Katanga, Belgian Congo.

Salmoite. **DT 728. Ab. AM 12, 58 (Feb. 1927).**
Biaxial. Grains. Colorless. "Probably a basic zinc phosphate." Salmo, British Columbia.

Salmonsite. **Ap. III, 69. DT 724. Ab. MM 16, 371 (No. 77).**
Orthorhombic. Cleavable fibrous masses. Buff. H 4. G 2.88. A hydrous phosphate of manganese and iron. $Fe_2O_3.9MnO.4P_2O_5.14H_2O$. An alteration product of hureaulite. Pala, San Diego County, California.

Salvadorite. **Ap. I, 60. DT 761. Ab. MM 11, 240 (No. 52); 11, 334 (No. 53).**
Monoclinic. Rough prismatic crystals. Bluish green. A hydrous sulfate of iron and copper. $FeCu_2(SO_4)_3.21H_2O$. Salvador mine, Quetena, Chile.

Samiresite. Ap. III, 69. DT 694. Ab. MM 16, 371 (No. 77).

Isometric. In octahedrons. Golden-yellow. G 5.24. A titano-niobate of uranium, lead, etc. Near Samiresy, Madagascar.

Samsonite. Ap. III, 69. DT 452. Ab. MM 15, 430 (No. 72). CA 4, 2431; 9, 575.

Monoclinic. Prismatic. Steel-black; red in transmitted light. H 2–3. A sulfantimonite of silver and manganese. $2Ag_2S.MnS.Sb_2S_3$. Resembles miargyrite in appearance and pyrargyrite in composition, with part of the silver replaced by manganese. Samson mine, St. Andreasberg, Harz, Germany.

Sanbornite. AM 17, 161–172 (May 1932). MA 5, 145. Ab. MM 23, 637 (No. 146). CA 26, 4772.

Triclinic. Crude tabular crystals. White. H about 5. G about 4.19. Barium metadisilicate. $BaSi_2O_5$. Mariposa County, California.

Sand-calcite. AM 11, 23–28 (Feb. 1926).

Calcite crystals containing a large percentage of sand. Also called siliceous calcite and Fontainebleau limestone.

Sanfordite. Ap. II, 90. Ab. MM 13, 375 (No. 62).

Same as the earlier name, rickardite.

Sanidine-anorthoclase. DT 541. MA 4, 389. Ab. MM 22, 627 (No. 134).

Triclinic. Tabular crystals. Drachenfels, Rhineland, Germany.

Sapromyxite. Ab. MM 20, 465 (No. 110).

Same as tomite.

Sapropelite. Ab. MM 24, 623 (No. 158).

Coals derived from algal materials.

Sardinian. MA 6, 192. CA 29, 3943.

Anglesite from Sardinia.

Sartorite-alpha. MM 18, 312 (No. 86).

A crystallographic variation of sartorite.

Satelite. Ab. MM 15, 431 (No. 72). CA 3, 2665.

A trade name for a serpentine cat's-eye from Tulare County, California. Resembles chrysotile.

Sauconite. Ab. MM 12, 391 (No. 58).

A zinciferous clay from Saucon Valley, Pennsylvania. See DS, 5th ed., p. 409.

Scawtite. DT 687. Ab. AM 15, 82 (Feb. 1930); 20, 403 (May 1935). MM 22, 222 (No. 128). MA 6, 125. CA 24, 4483.

Monoclinic (?). Divergent groups of small plates. Colorless. H 4.5–5. G 2.77. A calcium silicate and carbonate. $4CaO.3SiO_2.2CO_2$. Scawt Hill, County Antrim, Ireland; Little Belt Mts., Montana.

Schadeite. DT 711. Ab. MM 18, 386 (No. 87).

The colloidal equivalent of plumbogummite. Huelgoat, Brittany, France.

Schafarzikite. DT 737. Ab. AM 6, 173 (Dec. 1921); 13, 493 (Sept. 1928). MA 1, 200; 3, 99. Ab. MM 19, 348 (No. 98). CA 15, 3263.

Tetragonal. Prismatic needle crystals. Red, reddish brown. H 3.5. G about 4.3. An iron phosphite. $nFeO.P_2O_3$. Pernak, Czechoslovakia.

Schairerite. DT 755. AM 16, 133–139 (Apr. 1931). MA 4, 498. Ab. MM 22, 627 (No. 134). CA 25, 5116.

Rhombohedral. Minute crystals. Colorless. H 3.5. G 2.612. A sodium sulfate, fluoride, and chloride. $Na_2SO_4.Na(F,Cl)$. Searles Lake, California.

Schallerite. DT 604. AM 10, 9 (Jan. 1925); 13, 341–348 (July 1928); 22, 357 (May 1937). MA 2, 419. Ab. MM 20, 465 (No. 110). CA 19, 626.

Probably hexagonal. Massive. Light to reddish brown. H 4.5–5. G 3.37. A hydro-chloro-silicate and arsenite of manganese. $Mn_8(Si,As)_6O_{15}(OH,Cl)_{10}$. Franklin, New Jersey.

Schanjawskite. Ab. MM 19, 348 (No. 98).

Same as shanyavskite.

Scharizerite. DT 777. Ab. AM 13, 159 (Apr. 1928). MA 3, 474. Ab. MM 21, 576 (No. 122). CA 21, 3862.

Massive. Black. A nitrogenous carbon compound. C, 35%; H, 45%; N, 8%; ash, 17%. Styria.

Schaumopal. Ap. III, 70. DT 476.

A porous variety of opal. Virunga District, Tanganyika Territory, East Africa.

Schernikite. Ab. MM 18, 386 (No. 87). MM 21, 245 (No. 117).

A pink, fibrous variety of muscovite, occurring intergrown with lepidolite. Haddam Neck, Connecticut.

Schertalite. Ap. II, 91. Ab. MM 13, 376 (No. 62).
Same as schertelite.

Schertelite. Ap. II, 91. DT 726. Ab. MM 14, 409 (No. 67).
The correct spelling of schertalite. Small, tabular crystals in bat guano in caves near Skipton, near Ballarat, Victoria. An acid hydrous phosphate of magnesium and ammonium. $Mg(NH_4)_2H_2(PO_4)_2.4H_2O$.

Scheteligite. Ab. AM 23, 293 (Apr. 1938). MA 6, 487. CA 31, 3451; 32, 888.
Orthorhombic. Small, rough crystals. Black. H 5.5. G 4.74. A titano-tantalo-niobate and tungstate of calcium, iron, manganese, antimony, bismuth, and yttrium. $(Ca,Fe,Mn,Sb,Bi,Y)_2(Ti,Ta,Nb,W)_2(O,OH)_7$. Torvelona, Iveland, Norway.

Schizolite. Ap. II, 92. DT 567. Ab. MM 12, 391 (No. 58). MA 3, 103.
Triclinic. Columnar prismatic crystals. Light red, changing to brown. H 5–5.5. G 2.97–3.13. A basic silicate of sodium, calcium, and manganese. A manganiferous variety of pectolite. Julianehaab, Greenland; Kola Peninsula, Russian Lapland.

Schoepite. DT 510. AM 8, 67–69 (Apr. 1923); 10, 38 (Feb. 1925); 19, 309–315 (July 1934). MA 2, 147 and 249 and 383; 3, 233; 6, 90 and 332. CA 17, 1935.
Orthorhombic. Minute crystals. Sulfur-yellow. G 5.685. A hydrous uranium oxide. $3UO_3.7H_2O$, or $4UO_3.9H_2O$. Probably identical with becquerelite. Katanga, Belgian Congo; Wölsendorf, Bavaria, Germany.

Schroetterite. AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).
Preferred spelling for schrötterite, DS No. 500.

Schultenite. DT 711. Ab. AM 12, 296 (July 1927). MM 21, 149–155 (No. 115). Ab. MM 21, 576 (No. 122). MA 3, 232. CA 21, 878.
Monoclinic. Thin crystalline plates, resembling selenite. Colorless. H 2.5. G 5.943. A basic orthoarsenate of lead. $HPbAsO_4$. Tsumeb, South West Africa.

Schulzenite. Ap. I, 61. DT 510. Ab. MM 11, 335 (No. 53).
Amorphous. Black. H 3.5. G 3.39. A hydrous oxide of copper and cobalt. $CuO.2CoO.Co_2O_3.4H_2O$. Chile (?).

Scleroclasite. AM 8, 186 (Oct. 1923). Ab. MM 19, 348 (No. 98).
Same as scleroclase, identical with sartorite.

Sclerospathite. Ap. II, 92 (scleropasthite). Ab. MM 13, 376 (No. 62). CA 8, 40.

Compact, felted masses, consisting of minute, silky fibers. A hydrous sulfate of iron and chromium, perhaps allied to knoxvillite. Salisbury, Tasmania.

Seamanite. DT 739. AM 15, 220 (June 1930). MA 4, 342. Ab. MM 22, 627 (No. 134). CA 25, 1769.

Orthorhombic. Slender, prismatic crystals. Yellow. H 4. G 3.128. A hydrated boro-phosphate of manganese. Perhaps $3MnO.(B_2O_3,P_2O_5).3H_2O$. Iron County, Michigan.

Searlesite. Ap. III, 71. DT 687. Ab. MM 17, 357 (No. 82). CA 8, 3544; 9, 43.

Monoclinic. Minute spherulites composed of radiating fibers. White. H 3.5. G 2.45. A hydrous borosilicate of sodium. $NaB(SiO_3)_2.H_2O$. Searles Lake, California.

Seelandite. Ap. I, 61. Ab. MM 11, 335 (No. 53).

A variety of pickeringite forming an efflorescence. A hydrous sulfate of magnesium and aluminum. $MgAl_2(SO_4)_4.27H_2O$. Lölling, Carinthia.

Sefströmite. Ap. III, 71. MM 15, 281 (No. 71). Ab. MM 15, 431 (No. 72).

Supposed to be a vanadiferous variety of ilmenite, but proved to be a mixture. See davidite.

Seleniferous sulphur. Ab. AM 2, 12 (Jan. 1917); 2, 116 (Sept. 1917).

A variety of sulfur, not a species. Kilauea, Hawaii.

Selenium. AM 19, 203 (May 1934). MA 5, 520.

Hexagonal-rhombohedral. Native selenium. Se. Jerome, Arizona. See DS 5.

Selenobismutite. DT 412. AM 8, 186 (Oct. 1923). Ab. MM 19, 349 (No. 98).

Same as guanajuatite. Also used, in a restricted sense, for the orthorhombic Bi_2Se_3 as distinct from guanajuatite, $Bi_2(Se,S)_3$.

Selenolinnaeite. MA 4, 248. Ab. MM 22, 627 (No. 134).

A seleniferous variety of linneite (Se, 4.69%). Katanga, Belgian Congo.

Selensulfur. AM 9, 61 (Mar. 1924); 21, 189 (Mar. 1936).

Preferred spelling for selensulphur, DS No. 4.

Seligmannite. **Ap. II, 92; III, 71. DT 451. Ab. MM 13, 205 (No. 60). MM 13, 336–339 (No. 62); 14, 186 (No. 65); 16, 282 (No. 76). CA 5, 1044.**

Orthorhombic. Small, complex crystals. Lead-gray. H 3. A sulfarsenite of lead and copper. $2PbS.Cu_2S.As_2S_3$. Binnenthal, Switzerland; Emery, Montana; Bingham, Utah. Resembles bournonite.

Seminephrite. **MA 6, 501. Ab. MM 24, 623 (No. 158).**

Coarsely crystalline tremolite as acicular prisms and sheaves of parallel fibers. The term is introduced rather as a rock name for forms intermediate between nephrite and tremolite-schist.

Semi-whitneyite. **Ab. MM 13, 376 (No. 62).**

Massive copper arsenides in which the ratio of Cu: As is variable and very high (up to 30:1). Mohawk mine, Keweenaw County, Michigan.

Senaite. **Ap. I, 62; II, 93. DT 486. MM 12, 30–32 (No. 54). Ab. MM 12, 391 (No. 58); 13, 398 (No. 62).**

Rhombohedral. Complex, trirhombohedral crystals. Black. H 6. G 5.301. A titanate of iron, manganese, and lead. $(Fe,Mn,Pb)O.TiO_2$. Isomorphous with geikielite and ilmenite. Diamantina, Minas Geraes, Brazil.

Serandite. **DT 685. Ab. AM 16, 344 (Aug. 1931). MA 4, 497. Ab. MM 22, 628 (No. 134). CA 25, 2080.**

Monoclinic. Elongated crystals. Peach-blossom red. G 3.215. An acid metasilicate of manganese, calcium, sodium, and potassium. $15(Mn,Ca)O.3(Na,K)_2O.20SiO_2.2H_2O$. Los Islands, French Guinea.

Serendibite. **Ap. II, 93. DT 639. AM 17, 457–465 (Oct. 1932). MM 13, 224–227 (No. 61). Ab. MM 13, 376 (No. 62). CA 27, 2653.**

Triclinic. Grains. Indigo-blue to grayish blue-green. H 6.75. G 3.42. A boro-silicate of aluminum, calcium, and magnesium. $3Al_2O_3.4MgO.2CaO.B_2O_3.4SiO_2$. Near Kandy, Ceylon; near Johnsburg, Warren County, New York.

Serpentine-jade. **Ab. MM 24, 623 (No. 158).**

A serpentine resembling jade, used as an ornamental stone. China.

Serpophite. Ab. MM 23, 637 (No. 146).
Name suggested for the compact varieties of serpentine. A combination of the names serpentine and ophite.

Shaniavskite. CA 8, 2328.
Same as shanyavskite.

Shannonite. DT 599. Ab. AM 13, 160 (Apr. 1928). Ab. AM 14, 42 (Jan. 1929). MA 3, 273. Ab. MM 21, 576 (No. 122). CA 21, 3861.
Orthorhombic (?). Colorless to light gray. A calcium orthosilicate. $CaSiO_4$. Later shown to be identical with monticellite. Shannon Tier, Tasmania.

Shanyavskite. Ap. III, 71. DT 509. Ab. MM 16, 371 (No. 77).
Amorphous, colloidal. Glassy. A hydrous aluminum oxide. $Al_2O_3.4H_2O$. Near Moscow, Russia.

Shattuckite. Ap. III, 72. DT 687. Ab. MM 17, 357 (No. 82). MA 1, 10; 3, 59 and 460. CA 9, 426; 12, 1448; 13, 946.
Monoclinic. Compact, fibrous, or pseudomorphs after malachite. Blue. G 3.8. A hydrous silicate of copper. $2CuSiO_3.H_2O$. Identity with plancheite has been suggested and denied. Bisbee, Arizona; Tantara, Belgian Congo.

Sheridanite. Ap. III, 72. DT 671. Ab. MM 16, 372 (No. 77). MA 2, 189.
A pale greenish to nearly colorless talc-like chlorite, near to leuchtenbergite, G 2.68, containing much aluminum and very little iron. $H_6Mg_3Al_2Si_2O_{13}$. Sheridan County, Wyoming.

Shinkolobwite. Ab. MM 21, 576 (No. 122).
Another spelling of chinkolobwite.

Sicklerite. Ap. III, 72. DT 724. Ab. MM 16, 372 (No. 77).
Orthorhombic (?). In cleavable masses. Dark brown. H 4. G 3.45. A hydrous phosphate of iron and manganese with lithia. $Fe_2O_3.6MnO.4P_2O_5.3(Li,H)_2O$. Pala, San Diego County, California.

Siderazotite. AM 8, 186 (Oct. 1923). Ab. MM 19, 349 (No. 98).
Same as siderazote.

Siderotil. Ap. I, 62. DT 762. Ab. MM 11, 335 (No. 53).
Groups of divergent needles. A hydrous sulfate of iron. $FeSO_4.5H_2O$. Idria, Gorizia, Italy.

Silesite. DT 497. Ab. AM 11, 218 (Aug. 1926). MA 3, 112 and 370. Ab. MM 21, 576 (No. 122). CA 21, 39.

Chalcedony-like. Light yellow. H 6. G 5. Described as a silicate of tin, Sn about 55%, but "very probably an intimate mixture of wood tin and silica." Tin veins of Bolivia.

Silico-carnotite. MA 5, 318. Ab. MM 19, 349 (No. 98).

Orthorhombic. Crystals. Blue. An artificial silico-phosphate of calcium. $Ca_3(P_2O_8).2CaO.SiO_2$. Occurs in slag.

Silicoilmenite. MA 4, 499. Ab. MM 22, 628 (No. 134).

A red-brown mineral forming polysynthetic intergrowths with ilmenite and micropegmatitic intergrowths with microcline (?) and sphene. It is considered to be a solid solution of silicate or silica in ilmenite. Ilmen Mts., Urals.

Silicomagnesiofluorite. Ap. II, 94. DT 639. Ab. MM 14, 409 (No. 67).

Radiated-fibrous, in spherical forms. Ash-gray, light greenish or bluish. H 2.5. G 2.913. A hydro-fluosilicate of calcium and magnesium. $H_2Ca_4Mg_3Si_2O_7F_{10}$. Near Impilaks, Finland.

Silver-jamesonite. AM 6, 83 (Apr. 1921); 8, 186 (Oct. 1923). MA 1, 151. Ab. MM 19, 349 (No. 98).

Same as owyheeite.

Silvialite. DT 604. Ab. MM 17, 357 (No. 82).

A hypothetical molecule of the scapolite group, identical with sulfate-meionite. Supposed to be a calcium aluminum silicate and sulfate. $CaSO_4.3CaAl_2Si_2O_8$.

Simonellite. DT 776. Ab. AM 7, 178 (Oct. 1922). MA 1, 202. Ab. MM 19, 349 (No. 98). CA 15, 2708.

Orthorhombic. Crystalline incrustation on lignite. White. A hydrocarbon. Probably $C_{15}H_{20}$. Fognano, Tuscany.

Sincosite. DT 736. Ab. AM 7, 163 (Sept. 1922); 10, 131 (May, 1925). MA 1, 375. Ab. MM 19, 349 (No. 98). CA 16, 1921; 19, 626.

Tetragonal. Small, tabular crystals. Leek-green. G 2.84. A hydrous vanadyl, calcium phosphate. $CaO.V_2O_4.P_2O_5.5H_2O$. Sincos, Peru.

Sitaparite. Ap. III, 72. DT 487. Ab. MM 15, 431 (No. 72). CA 3, 1513.

Crystalline. Cleavable. Dark bronze-gray. H 7. G 4.93–5.09. Oxides of manganese, iron, and calcium. Perhaps $9Mn_2O_3.4Fe_2O_3.MnO_2.3CaO$. Sitapar, India.

Sjögrufvite. **Ap. I, 62. Ab. MM 11, 335 (No. 53).**
Crystalline. Yellow; blood-red in thin layers. A hydrous arsenate of manganese and iron. Related to arseniopleite. Sjö mine, Örebro, Sweden.

Skemmatite. **Ap. III, 72. DT 510. Ab. MM 17. 357 (No. 82). CA 7, 3947.**
A black alteration product of pyroxmangite. H 5.5–6. A hydrous oxide of manganese and ferric iron. $3MnO_2.2Fe_2O_3.6H_2O$. Near Iva, South Carolina.

Skiagite. **DT 594. Ab. AM 13, 33 (Jan. 1928); 15, 203 (May, 1930). MA 3, 308. Ab. MM 21, 576 (No. 122).**
The ferrous-ferric garnet molecule. $3FeO.Fe_2O_3.3SiO_2$. Also called iron-andradite. Glen Skiag, Scotland; India.

Sklodowskite. **DT 688. Ab. AM 10, 132 (May 1925). MA 2, 341 and 384; 3, 233. CA 18, 3577; 21, 2636.**
Orthorhombic. Minute, acicular crystals. Pale lemon-yellow. G 3.54. A hydrous silicate of uranium and magnesium. $MgO.2UO_3.2SiO_2.7H_2O$. Isomorphous with uranophane (MA 3, 371). See also chinkolobwite. Chinkolobwe. Kasolo, Belgian Congo.

Skolite. **MA 6, 345. Ab. MM 24, 623 (No. 158). CA 32, 886.**
Scaly. Dark green. H 2. G 2.508–2.572. A hydrous silicate of aluminum, iron, potassium, etc. $H_4K(Mg,Fe'',Ca)(Al,Fe''')_3Si_6O_{20}.4H_2O$. An aluminous glauconite; close to bravaisite. Skole, Poland.

Slavikite. **DT 766. Ab. AM 13, 492 (Sept. 1928). MA 3, 365. Ab. MM 21, 576 (No. 122). CA 22, 1119.**
Hexagonal, rhombohedral. Minute crystals. Greenish yellow. G 1.905. A hydrous sulfate of iron, sodium, and potassium. $(Na,K)_2SO_4.Fe_{10}(OH)_6(SO_4)_{12}.63H_2O$. Near Skrivan, Bohemia.

Smithite. **Ap. II, 95. DT 447. Ab. MM 14, 409 (No. 67). MM 14, 74 (No. 64); 14, 293–298 (No. 67). CA 1, 2785.**
Monoclinic. Tabular, "flattened pyramid." Scarlet-vermilion, exactly like proustite; on long exposure to sunlight changes to orange-red. H 1.5–2. G 4.88. A sulfarsenite of silver. Binnenthal, Switzerland.

Sobralite. DT 566. Ab. AM 4, 76 (June, 1919). Ab. MM 18, 386 (No. 87). MA 1, 253. CA 13, 1198; 16, 2824.

Triclinic. Pale lilac grains. G 3.60. A metasilicate of manganese, iron, calcium, and magnesium. $4MnSiO_3.2FeSiO_3.CaSiO_3.MgSiO_3$. A manganese pyroxene; later proved to be identical with pyroxmangite. Tunaberg, Sweden.

Soda-alunite. AM 20, 57 (Jan. 1935). MA 6, 188.

Rhombohedral (?). Chalky masses of minute crystals. Identical with natroalunite. Molaki, Hawaiian Islands.

Soda-amblygonite. Ab. MM 16, 372 (No. 77).

Same as natramblygonite.

Soda-berzeliite. Ap. I, 63. Ab. MM 11, 163 (No. 51); 11, 335 (No. 53). MA 4, 277.

Isometric. Usually massive. Fire-red or orange-yellow. H 4–4.5. G 4.21. An arsenate (and vanadate) of sodium, calcium, manganese, and magnesium. $(Na_2,Ca)(Mn,Mg)_2(As,V)_3O_{12}$. Langban, Sweden.

Soda-catapleiite. Ab. MM 12, 391 (No. 58).

Same as natroncatapleiite.

Sodaclase. Ab. MM 21, 577 (No. 122).

Members of the plagioclase series between pure albite and $Ab_{90}An_{10}$.

Soda-dehrnite. AM 15, 305 (Aug. 1930). Ab. MM 22, 628 (No. 134).

The original dehrnite from Dehrn. A hydrous phosphate of calcium and sodium, perhaps $7CaO.Na_2O.2P_2O_5.H_2O$. See further under dehrnite.

Soda-garnet. Ab. MM 12, 391 (No. 58).

Same as lagoriolite.

Soda-glauconite. Ab. AM 9, 118 (May 1924). MM 19, 333 (No. 98). Ab. MM 19, 349 (No. 98).

"A glauconite in which part of the potash is replaced by soda."

Soda-heterosite. Ab. AM 22, 876 (July 1937).

Theoretical heterosite derived from headdenite.

Soda-jadeite. MA 1, 383. Ab. MM 19, 349 (No. 98).

Same as jadeite. G 3.335. Burma.

Soda-leucite. Ab. MM 14, 410 (No. 67).

The original mineral of pseudoleucite. Same as palaeoleucite.

Sodalumite. **Ab. MM 21, 577 (No. 122).**

Sodium-alum, $Na_2Al_2(SO_4)_4.24H_2O$. The isometric modification prepared artificially and not known with certainty as a mineral.

Soda-margarite. **DT 666. MM 22, 485 (No. 132). Ab. MM 22, 628 (No. 134). CA 25, 5116.**

Monoclinic, pseudohexagonal. Mica-like habit. Pink to pinkish brown. H 5–7. G 3. A hydrous silicate, chiefly of aluminum and sodium. A variety of margarite in which most of the lime is replaced by soda. Identical with ephesite. Ephesus, Asia Minor; Postmasberg, South Africa.

Soda-melilite. **DT 607. AM 14, 389–407 (Nov. 1929). MA 4, 204. Ab. MM 22, 628 (No. 134).**

A hypothetical molecule assumed to be present in melilite. $Na_2Si_3O_7$. Regarded as an end member of the melilite group.

Soda-microcline. **Ap. I, 5. Ab. MM 12, 391 (No. 58).**

Same as anorthoclase.

Soda-nepheline hydrate. **Ab. MM 11, 111 (No. 50).**

An artificial mineral. A hydrous silicate of sodium and aluminum. $4Na_2Al_2Si_2O_8.5H_2O$. Later called lembergite.

Soda-orthoclase. **DT 537. MA 3, 268.**

Varieties of orthoclase in which sodium replaces part of the potassium, sometimes exceeding it in amount. See also barbierite. Fredriksvärn, Norway.

Soda-purpurite. **Ab. AM 22, 876 (July 1937).**

Theoretical purpurite derived from varulite.

Soda-richterite. **Ap. I, 63. Ab. MM 11, 335 (No. 53).**

To replace the name astochite, DS p. 1027.

Soda-sarcolite. **AM 5, 16 (Jan. 1920). Ab. MM 18, 386 (No. 87).**

"A hypothetical isomorph." Wherry. "A hypothetical molecule, $3Na_2O.Al_2O_3.3SiO_2$, corresponding with sarcolite, but containing sodium in place of calcium, assumed to explain the composition of minerals of the melilite group. Present to the extent of 12.2% in a melilite from Vesuvius."

Soda-tremolite. **AM 16, 143 (Apr. 1931). MA 5, 216. Ab. MM 23, 638 (No. 146).**

Sodium-bearing tremolite. $CaNa_2Mg_5(OH)_2(Si_4O_{11})_2$.

Soddite. DT 688. Ab. AM 7, 179 (Oct. 1922). MA 1, 377; 3, 233. Ab. MM 19, 350 (No. 98). CA 16, 2653.

Orthorhombic. Minute, striated, prismatic crystals and in masses. Dull yellow. H 3–4. G 4.627. A hydrous silicate of uranium. $5UO_3.2SiO_2.6H_2O$(?). Kasolo, Katanga, Belgian Congo.

Soddyite. DT 688. MA 3, 371. Ab. MM 21, 577 (No. 122).

A more correct, but less used, form of soddite.

Sodium bicarbonate. AM 7, 87 (May 1922); 9, 175 (Aug. 1924). CA 16, 2652.

Monoclinic. Bladed crystals. Yellowish gray. Hard. G 2.14. Same as nahcolite. $NaHCO_3$. Little Mogadi Lake, British East Africa.

Sodium-orthoclase. Ap. III, 10.

See barbierite.

Sommairite. Ab. MM 14, 410 (No. 67).

A zinciferous melanterite from Laurium, Greece.

Sorbite. MA 1, 231. Ab. MM 18, 387 (No. 87).

Cubes. Copper-red. Artificial titanium cyano-nitride. $Ti(CN)_2.3Ti_3N_2$. Produced in blast furnace "bears." Compare with cochranite.

Soretite. Ap. II, 95. DT 575. Ab. MM 14, 410 (No. 67). CA 17, 42.

A variety of common aluminous hornblende, defined by its optical characters. Koswinsky, Kamen, Urals.

Sosmanite. Ab. MM 24, 623 (No. 158). MA 3, 217.

Identical with maghemite.

Souesite. Ap. II, 95. DT 408. Ab. MM 14, 410 (No. 67).

Small, rounded grains. G 8.215. A native nickel-iron alloy from auriferous gravels of Fraser River, British Columbia.

Soumansite. Ap. III, 73. DT 730. AM 15, 316 (Aug. 1930). Ab. MM 16, 372 (No. 77). CA 8, 3172.

Tetragonal. Pyramidal crystals. Colorless. H 4.5. G 2.87. A fluophosphate of aluminum and sodium with some water or hydroxyl. Later proved to be identical with wardite. Montebras, Soumans, Creuse, France.

South African jade.

Same as garnet-jade.

Spalmandite. Ab. MM 21, 577 (No. 122).
A contraction of spessartite and almandite, for garnets of intermediate composition.

Spandite. Ap. III, 33. Ab. MM 14, 410 (No. 67). CA 4, 735.
A contraction of spessartite-andradite, applied to garnets intermediate in chemical composition between spessartite and andradite.

Speculite. Ap. II, 95. Ab. MM 13, 376 (No. 62).
A specular gold and silver telluride resembling sylvanite in color and perfect cleavage, but differing in composition (Au, 36%; Ag, 4%). G 8.64. Kalgoorlie, Western Australia.

Spencerite. DT 728. Ab. AM 1, 48 (Mar. 1916); 2, 41 (Mar. 1917). MM 18, 76–81 (No. 83). Ab. MM 18, 387 (No. 87). CA 10, 2677.
Monoclinic. Radiating masses of crystals; lamellar. White. H 3. G 3.145. A basic hydrous phosphate of zinc. $Zn_3(PO_4)_2.Zn(OH)_2.3H_2O$. Near Salmo, British Columbia.

Speziaite. Ap. III, 73. DT 575. Ab. MM 17, 357 (No. 82). CA 9, 577.
Monoclinic. Slender prismatic crystals, or fibrous. Intense dark green, cloudy green, or black. An iron amphibole. An orthosilicate of iron, calcium, magnesium, and sodium. $5Fe_4(SiO_4)_3.12(Ca,Mg,Fe,Na_2,H_2)_2SiO_4$. Traversella, Piedmont, Italy.

Sphaeromagnesite. Ab. MM 19, 350 (No. 98).
Radial aggregates of magnesite crystals forming spheres (10 cm. diameter) in crystalline magnesite. Near Gloggnitz, Austria.

Sphenomanganite. DT 505. Ab. AM 5, 86 (Apr. 1920). MA 1, 123. MA 1, 123. CA 14, 1097.
Orthorhombic. Crystals of sphenoidal habit. Black. G 4.29. Hydrous manganese sesquioxide. $Mn_2O_3.H_2O$. A variety of manganite. Langban, Sweden.

Spherite. AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).
Preferred spelling for sphaerite, DS No. 643.

Spherocobaltite. AM 9, 61 (Mar. 1924); 21, 189 (Mar. 1936).
Preferred spelling for sphaerocobaltite, DS No. 276.

Spinellids. **AM 14, 341–357 (Oct. 1929). Ab. MM 19, 350 (No. 98).**
A name for minerals of the spinel group characterized by isometric crystallization, predominating octahedral form, having composition of double oxides with the general formula $R''O.R'''_2O_3$, with R'' = Mg, Fe, and less frequently Mn, Zn; R''' = Al, Fe, Cr, Mn. All of the species are hard, 5.5 to 8.

Spodiophyllite. **Ap. II, 96. DT 673. Ab. MM 12, 391 (No. 58).**
Rough hexagonal prisms, resembling chlorite. Ash-gray. H 3–3.25. G 2.633. A silicate of iron, aluminum, magnesium, manganese, sodium, and potassium. $(Al,Fe)_2(Mg,Fe,Mn)_3(Na_2,K_2)(SiO_3)_8$. Narsarsuk, Greenland.

Sporogelite. **Ap. III, 74. DT 506. Ab. MM 16, 372 (No. 77). CA 7, 1470 and 2030.**
A colloidal form of aluminum hydroxide, $Al_2O_3.H_2O$, occurring as one of the constituents of bauxite. Also called diasporogelite, cliachite, and alumogel.

Spurrite. **Ap. II, 97. DT 687. Ab. MM 15, 431 (No. 72). CA 3, 524.**
Probably monoclinic. Granular masses resembling crystalline limestone. Pale gray. H 5. G 3. A silicate and carbonate of calcium. $2Ca_2SiO_4.CaCO_3$. Velardeña, Durango, Mexico; Scawt Hill, Ireland; Luna County, New Mexico; Crestmore, California.

Stagmalite. **Ab. MM 13, 377 (No. 62).**
A general term to include both stalactite and stalagmite, for formations produced by dropping water.

Stainerite. **Ab. AM 16, 92 (Feb. 1931); AM 20, 274–280 (Apr. 1935). MA 4, 248 and 347; 6, 152. CA 24, 1313.**
Orthorhombic (?). Granular and crystalline, not colloidal. Black. H 4.5. G 4.32. A hydrous sesquioxide of cobalt, with some iron and aluminum. $Co_2O_3.H_2O$. The crystalline form of heterogenite. Mindingi, Katanga, Belgian Congo; Goodsprings, Nevada.

Stainierite. **CA 25, 2941.**
Same as stainerite.

Stantienite. **Ap. II, 97. Ab. MM 12, 392 (No. 58).**
A black resin occurring with Prussian amber.

Starlite. DT 610. AM 12, 294 (July 1927). Ab. MM 21, 577 (No. 122).

A trade name given by Kunz to the artificially colored blue zircon from Siam.

Starolite. Ab. MM 18, 387 (No. 87).

"Jewellers' trade-name for asteriated quartz showing a six-rayed star by reflected light."

Stasite. DT 736. Ab. AM 7, 196 (Nov. 1922); 10, 201 (Aug. 1925). MA 1, 377. Ab. MM 19, 350 (No. 98). CA 16, 2096.

Minute prisms. Golden-yellow. G 5.03. A hydrous phosphate of uranium and lead. $4PbO.8UO_3.3P_2O_5.12H_2O$ (?). Kasolo, Katanga, Belgian Congo. Dimorphous with dewindtite.

Staszicite. DT 716. Ab. AM 9, 38 (Feb. 1924). MA 2, 51, 52. CA 17, 3659.

Orthorhombic (?). Fibrous, compact; botryoidal. Yellowish green. H 5.5–6. G 4.227. A basic arsenate of calcium, copper, and zinc. $(Ca,Cu,Zn)_5(AsO_4)_2(OH)_4$. An alteration product of tennantite, analogous to erinite. Miedzianka, Poland.

Steadite. Ab. MM 19, 350 (No. 98).

(*a*) A eutectic consisting of iron phosphide and iron, as a constituent of gray cast iron. (*b*) A basic calcium silico-phosphate, $3(3CaO.P_2O_5).2CaO.(2CaO.SiO_2)$, occurring as yellow, hexagonal needles in basic slag.

Steenstrupite. Ab. MM 13, 377 (No. 62).

Same as steenstrupine, DS p. 415.

Steigerite. AM 20, 769–772 (Nov. 1935). MA 6, 260. CA 30, 3749.

Amorphous. Powdery, cryptocrystalline. Canary-yellow. A basic hydrous vanadate of aluminum. $Al_2O_3.V_2O_5.6\frac{1}{2}H_2O$. San Miguel County, Colorado.

Stellerite. Ap. III, 74. DT 649. Ab. MM 15, 431 (No. 72). CA 4, 292.

An orthorhombic zeolite. Crystals tabular, resembling stilbite; also platy masses. Flesh-red. H 3.5–4. G 2.124. A hydrous silicate of calcium and aluminum. $CaAl_2Si_7O_{18}.7H_2O$. Copper Island, Bering Sea; near Juneau, Alaska.

Stelznerite. Ap. II, 97; III, 74. DT 756. Ab. MM 12, 308 (No. 57); 12, 392 (No. 58). CA 5, 55.

Orthorhombic. Prismatic crystals resembling brochantite. Green. G 3.884. A basic sulfate of copper. $CuSO_4.2Cu(OH)_2$. Remolinas, Chile. Probably identical with antlerite.

Stevensite. Ap. I, 64. Ab. MM 11, 335 (No. 53). MA 1, 31.

A pseudomorph of talc after pectolite. Springfield Township and West Paterson, New Jersey.

Stewartite. Ap. III, 74. DT 720. Ab. AM 4, 92 (July 1919). Ab. MM 16, 372 (No. 77). CA 13, 20.

(*a*) Triclinic. Fibers or minute crystals. Colorless to yellow. G 2.94. A hydrous manganese phosphate. $3MnO.P_2O_5.4H_2O$. Stewart mine, Pala, California. (*b*) A fibrous variety of bort containing iron and, therefore, magnetic. Steel-gray. G about 3.45. Kimberley, South Africa.

Stiberite. Ab. MM 11, 335 (No. 53).

Same as ulexite.

Stibiobismuthinite. DT 411. Ab. MM 17, 358 (No. 82). CA 20, 3668.

Large cleavable prisms resembling stibnite rather than bismuthinite in appearance, consisting of bismuth sulfide with 8.12% Sb. $(Bi,Sb)_4S_7$. Nacozari, Mexico.

Stibiocolumbite. Ap. III, 74. Ab. MM 17, 358 (No. 82).

Name proposed for the stibiotantalite from Mesa Grande, California, because the amount of niobium is greatly in excess of the tantalum (in one analysis).

Stibiodomeykite. Ap. II, 36 and 97. Ab. MM 13, 377 (No. 62).

Massive. H 4. G 7.902. A variety of domeykite distinguished by a small amount of antimony (Sb. 0.78–1.29%). Mohawk mine, Keweenaw County, Michigan.

Stibioluzonite. AM 22, 520 (May 1937). Ab. MM 13, 377 (No. 62).

Massive. Reddish. The antimony-rich variety of luzonite. Identical with famatinite, or intermediate between luzonite and famatinite. A sulfantimonate of copper. Cu_3SbS_4. Caudalosa mine, Peru.

Stibiopalladinite. DT 407. Ab. AM 13, 201 (May 1928); 15, 242 (June 1930). MA 4, 145 and 149. Ab. MM 22, 628 (No. 134).

Isometric. Grains and small crystals. Silver-white to steel-gray. H 4–5. G 9.5. An antimonide of palladium. Pd_3Sb. From the platiniferous norite of the Bushveld in the Transvaal, South Africa.

Stibiotantalite. Ap. I, 64; II, 98; III, 74. DT 697. Ab. MM 11, 335 (No. 53). CA 3, 1741.

Orthorhombic, hemimorphic. Brown, yellow, reddish yellow. H 5.5. G 6.0–7.4. A tantalo-niobate of antimony. $(SbO)_2(Ta,Nb)_2O_6$. Greenbushes, Western Australia; Mesa Grande, California.

Stichtite. Ap. III, 75. DT 532. MA 1, 175. MM 23, 309 (No. 140). Ab. MM 16, 372 (No. 77). CA 8, 40.

Hexagonal (?). Masses of fibers or scales in serpentine. Lilac. H 1.7. G 2.16–2.19. A basic hydrous carbonate of magnesium, chromium, and iron. $MgCO_3.5Mg(OH)_2.2[(Cr,Fe)(OH)]_3.4H_2O$. A chrome-brugnatellite. Dundas, Tasmania; near Dinvel's Kantoor, Barberton district, Transvaal, South Africa; Cunningsburgh, Shetland Islands; Quebec, Canada.

Stilpnochloran. Ap. II, 99. DT 673. AM 20, 480 (July 1935). Ab. MM 14, 410 (No. 67). CA 29, 83.

A chloritic mineral. In scales. Yellow to bronze-red. H 2–3. G 1.813–1.827. A hydrous silicate of ferric iron, aluminum, calcium, and magnesium. Possibly $H_{24}(Al,Fe)_{10}(Ca,Mg)Si_9O_{46}$. Structurally identical with nontronite. Gobitschau, Moravia.

Stoffertite. Ap. II, 99. DT 725. Ab. MM 13, 377 (No. 62).

A name provisionally given to a mineral similar to brushite, but containing a little more water. Island of Mona, West Indies.

Stokesite. Ap. II, 100. DT 633. MM 12, 274–281 (No. 57). Ab. MM 12, 392 (No. 58).

Orthorhombic. Acute pyramidal. Colorless. H about 6. G 3.185. A basic silicate of tin and calcium. $H_4CaSnSi_3O_{11}$. But a single specimen known. Roscommon Cliff, St. Just, Cornwall, England.

Striegovite. Ab. MM 12, 392 (No. 58).

Same as strigovite, DS No. 475.

Stromite. CA 29, 4705.

Same as stromnite, baritostrontianite, or barystrontianite, DS p. 285.

Strontiohitchcockite. AM 2, 120 (Sept. 1917). Ab. MM 18, 387 (No. 87).

Wherry's proposed name to replace goyazite and hamlinite.

Strontium-anorthite. MA 5, 102. Ab. MM 23, 638 (No. 146).

Triclinic. Lath-shaped crystals. G 3.118. Artificially prepared strontium aluminum silicate. $SrAl_2Si_2O_8$.

Strontium-aragonite. MA 6, 364. Ab. MM 24, 624 (No. 158).

Radiating, fibrous. Creamy white. G 2.90–2.91. A variety of aragonite containing 5.51% $SrCO_3$. Otago, New Zealand.

Strüverite. Ap. II, 100; III, 75. DT 499. Ab. MM 14, 411 (No. 67). MM 15, 78–89 (No. 68); 16, 224–231 (No. 75). CA 1, 1245; 2, 1673.

Tetragonal. Iron-black. H 6. G about 5.6. An isomorphous mixture of rutile and tapiolite, or a solid solution of tapiolite in rutile. Analysis of the mineral from Piedmont shows TiO_2, 41.39%; $Fe(Ta,Nb)_2O_6$, 58.61%. Not the strüverite of Brezina, DS p. 640. Keystone, South Dakota; Craveggia, Piedmont, Italy; Salak, Perak; Ampangabe, Madagascar.

Stuetzite. AM 9, 61 (Mar. 1924); 21, 189 (Mar. 1936).

Preferred spelling for stützite, DS No. 41.

Sturtite. Ab. AM 15, 537 (Nov. 1930). MA 4, 345. Ab. MM 22, 629 (No. 134). CA 25, 2943.

Compact. Black. H over 3. G 2.054. A hydrous silicate of iron and manganese with calcium and magnesium. $6(Mn,Ca,Mg)O.Fe_2O_3.8SiO_2.23H_2O$. Broken Hill, New South Wales.

Subhydrocalcite. Ab. MM 20, 465 (No. 110).

"A mould-like incrustation on chalk-marl." A hydrous calcium carbonate. Identical with trihydrocalcite. $CaCO_3.3H_2O$. Nova-Alexandria, Poland.

Sub-melilite. DT 607. AM 14, 389–407 (Nov. 1929). MA 4, 204. Ab. MM 22, 628 (No. 134).

A hypothetical molecule assumed to be present in melilite. $CaSi_3O_7$. An end member of the melilite group.

Sulfoborite. Ap. I, 65. Ab. MM 11, 103 (No. 50); 11, 335 (No. 53).

Same as sulphoborite.

Sulfohalite. AM. 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).
Preferred spelling for sulphohalite, DS No. 728.

Sulfur. AM 9, 61 (Mar. 1924); 21, 189 (Mar. 1936).
Preferred spelling for sulphur, DS No. 3.

Sulfurite. Ap. II, 101. Ab. MM 13, 377 (No. 62).
An arsenical sulfur occurring in brownish red, amorphous crusts. Same as arsensulfurite. Volcano of Papandajan, Java; near Naples, Italy.

Sulphate-apatite. DT 704. Ab. AM 3, 178 (Mar. 1918). Ab. MM 18, 387 (No. 87). MA 1, 256.
Small, colorless crystals of apatite occurring in the sanidinite bombs of the Laacher See district, Rhineland, Germany, containing some of the sulfate radical (SO_3, 1.13–1.35%).

Sulphate-marialite. Ap. III, 70. Ab. MM 17, 346 (No. 82). CA 14, 3620.
A hypothetical molecule assumed to explain the composition of the scapolite group of minerals. It is supposed to be a sodium-aluminum silicate and sulfate. $Na_2SO_4.3NaAlSi_3O_8$.

Sulphate-meionite. Ap. III, 70. Ab. MM 17, 346 (No. 82). CA 14, 3620.
A hypothetical molecule assumed to explain the composition of the scapolite group of minerals. It is supposed to be a calcium-aluminum silicate and sulfate. $CaSO_4.3CaAl_2Si_2O_8$. Identical with silvialite.

Sulphate-scapolite. Ab. MM 17, 358 (No. 82).
Same as silvialite.

Sulphatic cancrinite. DT 587. Ab. AM 2, 13 (Jan. 1917). Ab. MM 18, 387 (No. 87). MA 1, 256; 4, 379. CA 11, 20.
Hexagonal. Nearly colorless or bluish. H about 5. G 2.35–2.443. A variety of cancrinite in which nearly half of the CO_3 is replaced by SO_4. "A member of an isomorphous series." Gunnison County, Colorado; South Ilmen Mts., Ural.

Sulphoborite. Ap. I, 65. DT 745. Ab. MM 12, 392 (No. 58).
Orthorhombic. Small, prismatic crystals. Colorless. H 4. G 2.38–2.45. A hydrous sulfate and borate of magnesium. $2MgSO_4.4MgHBO_3.7H_2O$. Also spelled sulfoborite. Westeregeln, Province of Saxony, Germany.

Sulphoselenium. MA 3, 297.
Same as selensulfur.

Sulphurite. Ab. MM 18, 387 (No. 87).
A mineralogical name for native sulfur.

Sulvanite. Ap. II, 101; III, 75. DT 457. Ab. AM 16, 114 (Mar. 1931); 16, 557–562 (Dec. 1931). Ab. MM 12, 392 (No. 58). MA 5, 96. CA 23, 1594.
Isometric. Cubes; also massive. Gray, bronze-yellow. H 3.5. G 4.0. A sulfovanadate of copper. Cu_3VS_4. Burra Burra, South Australia; Mercur, Utah.

Sundtite. Ap. I, 66. DT 446. MM 11, 286 (No. 53). Ab. MM 11, 336 (No. 53).
Identical with andorite. Oruro, Bolivia.

Sungulite. Ab. MM 24, 624 (No. 158). MA 6, 219 and 436. CA 28, 5372.
A new variety of serpentine. Greenish white. H 1–3. Vermicular prisms. Sungul Lake, Kyshtum, Urals.

Sursassite. DT 624. Ab. AM 12, 380 (Oct. 1927). MA 3, 272. Ab. MM 21, 577 (No. 122). CA 22, 45.
Monoclinic. Botryoidal. Reddish brown. A hydrous silicate of manganese and aluminum. $5MnO.2Al_2O_3.5SiO_2.3H_2O$. A manganiferous member of the epidote group. Oberhalbstein, Switzerland.

Swedenborgite. DT 737. Ab. AM 10, 40 (Feb. 1925); 19, 287 (June 1934). MA 2, 338; 6, 184. CA 20, 30.
Hexagonal. Prismatic crystals. Colorless to wine-yellow. H 8. G 4.285. An antimonate of sodium and beryllium. $Na_2O.8BeO.Sb_2O_5$. "A basic salt of H_7SbO_6." Langban, Sweden.

Sylvialite. Ap. III, 76. Ab. MM 17, 358 (No. 82).
Same as silvialite.

Sylvinite. Ab. MM 16, 373 (No. 77).
A mining term for the mixtures of sylvite and halite occurring in the Prussian salt deposits.

Synchisite. Ap. II, 102; III, 76 and 58. DT 526. Ab. MM 13, 207 (No. 60); 13, 377 (No. 62). CA 1, 2784; 6, 2222.
A supposed new mineral from Narsarsuk, Greenland. Identical with parisite.

Szaskaite. Ab. MM 12, 392 (No. 58).
Same as smithsonite. Szaska, Hungary.

Szechenyiite. Ap. II, 102. DT 574. CA 23, 64.
A soda-amphibole, resembling diallage, embedded in jadeite. $2Na_2O.10MgO.3CaO.Al_2O_3.16SiO_2$. Central Asia.

Szomolnokite. Ap. III, 76. DT 757. Ab. AM 14, 79 (Feb. 1929). Ab. MM 15, 431 (No. 72). MA 3, 479; 4, 8. CA 8, 3171.
Monoclinic. Pyramids, prismatic crystals, or botryoidal stalactites. Yellow or brown. G 3.085. A hydrous ferrous sulfate. $FeSO_4.H_2O$. Ferropallidite has the same composition. Smolnik, Czechoslovakia (formerly Szomolnok, Hungary).

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Tabbyite. Ab. MM 16, 373 (No. 77).
Trade name for a solid elastic bitumen from the Uintah basin, Utah. Closely related to wurtzilite.

Tachyhydrite. AM 9, 61 (Mar. 1924); 21, 189 (Mar. 1936).
Preferred spelling for tachhydrite, DS No. 202.

Taeniolite. Ap. II, 102. DT 666. AM 23, 104–110 (Feb. 1938). Ab. MM 13, 377 (No. 62).
Monoclinic, belonging to the mica group. Crystals thin, elongated strips; friable masses. White, colorless, or tinged with blue. H 2.5–3. G 2.628 (Ark.)–2.86 (Greenland). A basic silicate of potassium, lithium, and magnesium. $KLiMg_2Si_4O_{10}F_2$(Ark.). Narsarsuk, Greenland; Magnet Cove, Arkansas.

Tainiolite. Ap. II, 102. Ab. MM 12, 392 (No. 58).
Same as taeniolite.

Takizolite. DT 681. Ab. AM 14, 440 (Nov. 1929). MA 4, 247. Ab. MM 22, 629 (No. 134).
Monoclinic. A pink kaolin. A hydrous silicate of aluminum. $2Al_2O_3.7SiO_2.7H_2O$. Between catlinite and montmorillonite. Tanokami Hill, Omi, Japan.

Talasskite. Ab. AM 22, 810 (June 1937). MA 6, 439. CA 32, 886.
Orthorhombic. Masses or rough crystals. Brown. G 4.1. A silicate of ferrous and ferric iron and magnesium. $20FeO.2Fe_2O_3.13SiO_2$. A new variety of fayalite containing 12.07% Fe_2O_3. Talassa Valley, Kirghiz Republic, Siberia.

Talc-knebelite. Ap. I, 66. Ab. MM 11, 336 (No. 53).
A variety of knebelite containing 4.7% MgO. Dalecarlia, Sweden.

Talc-spinel. AM 8, 186 (Oct. 1923). Ab. MM 19, 351 (No. 98).
A variety of spinel.

Tamanite. Ap. II, 103. DT 720. MM 14, 122 (No. 64).
Same as anapäite. Taman Peninsula, Black Sea, Russia.

Tamarite. DT 578. Ab. MM 20, 466 (No. 110).
An error for taramite.

Tanatarite. DT 503. Ab. AM 13, 493 (Sept. 1928); 14, 79 (Feb. 1929). MA 3, 237 and 473. Ab. MM 21, 577 (No. 122). CA 21, 1781.
Monoclinic. H 6.5. G 3.385. A hydrous oxide of aluminum. "Apparently the same as kayserite." W. F. Foshag. Government of Kustanaisk, Russian Central Asia.

Tangeite. DT 727. Ab. AM 12, 380 (Oct. 1927). MA 3, 234. Ab. MM 21, 577 (No. 122). CA 21, 1783.
Fibrous, botryoidal. Olive-green. A hydrous vanadate of calcium and copper. $2CaO.2CuO.V_2O_5.H_2O$. The colloidal form is called Turkestan volborthite. Ferghana, Russian Turkestan.

Tangiwaite. Ab. MM 18, 388 (Nov. 87).
A variety of serpentine, identical with bowenite. New Zealand.

Tangueite.
See tangeite.

Tantalpyrochlore. MA 5, 185. Ab. MM 23, 625 (No. 146).
Same as microlite.

Tantalum. Ap. III, 76. DT 400. Ab. MM 15, 432 (No. 72). CA 4, 1959.
Isometric. Fine crystalline grains. Grayish yellow. Tantalum, 98.5%; niobium, 1.5%. From gold washings of the Urals and in the Altai Mts.

Tantalum cassiterite. Ap. III, 18.
Name proposed for ainalite, DS p. 236.

Tantalum ilmenorutile. Ap. III, 75.
Tetragonal. $FeO.(Ta,Nb)_2O_5.6TiO_2$. Etta mine, near Keystone, South Dakota.

Tanteuxenite. DT 698. AM 13, 467 (Sept. 1928). Ab. AM 14, 340 (Sept. 1929). AM 15, 81 (Feb. 1930). MA 4, 9. Ab. MM 22, 629 (No. 134). CA 23, 4167.

Orthorhombic. Imperfect crystals. Brown. H 5–6. G 5.55–5.77. "Essential composition a titanotantalate of yttrium." YTi_2TaO_8. Pilbara gold field, Western Australia.

Taosite. Ab. AM 21, 678 (Oct. 1936). MA 6, 150. Ab. MM 24, 624 (No. 158).

Uniaxial negative. Thin plates in spinel-emery. A form of alumina, Al_2O_3, distinct from corundum. Samos, Greece.

Taramellite. Ap. II, 103. DT 584. Ab. MM 15, 432 (No. 72). CA 2, 2917.

Probably orthorhombic. Radiating, fibrous aggregates. Reddish brown. H 5.5. G 3.92. A basic metasilicate of barium and iron. $Ba_4Fe''(Fe'''O)Fe'''_3(SiO_3)_{10}$. Candoglia, Piedmont, Italy.

Taramite. DT 578. Ab. AM 11, 219 (Aug. 1926). Ab. MM 20, 466 (No. 110). MA 3, 109.

Monoclinic. Black, with a tinge of blue. G 3.439–3.476. A soda-iron amphibole. Incorrectly spelled tamarite. Wali-tarama, Mariupol, Ukraine, Russia.

Taraspite. Ap. I, 67. DT 517. Ab. MM 11, 336 (No. 53).

A variety of dolomite from Tarasp, Switzerland. Same as miemite, DS p. 271.

Tarbuttite. Ap. II, 103; III, 76. DT 715. Ab. MM 14, 411 (No. 67). CA 2, 1676.

Triclinic. Rounded crystals often aggregated into sheaves. Colorless to pale yellow. H 3.75. G 4.12–4.15. A basic phosphate of zinc. $Zn_3P_2O_8.Zn(OH)_2$. Broken Hill, Northern Rhodesia.

Tartarkaite. Ap. III, 76.

Error for tatarkaite.

Tartufite. Ab. MM 16, 373 (No. 77).

"A fibrous, fetid calcite from Monte Viale, Venetia, Italy, which when struck emits an odor like that of truffles."

Tatarkaite. Ap. III, 76. DT 687. Ab. MM 17, 358 (No. 82).
Elongated, tabular crystals. Dark gray to black. G 2.744. A hydrous silicate of aluminum, magnesium, iron, etc. $R_2O.$-$11RO.13R_2O_3.30SiO_2.19H_2O$. Tatarka River, Angara, Siberia.

Tawmawite. Ap. III, 76. DT 623. Ab. MM 15, 432 (No. 72). CA 23, 64.
Massive fragments. Dark green. A chromiferous variety of epidote (Cr_2O_3, 11.16%). Tawmaw, Upper Burma.

Taylorite. Ap. I, 67. DT 747. Ab. MM 12, 392 (No. 58).
(*a*) A potassium-ammonium sulfate, DS p. 895. (*b*) A clay, later called bentonite.

Teallite. Ap. II, 104. DT 458. MM 14, 21–27 (No. 63). Ab. MM 14, 411 (No. 67).
Orthorhombic (?). Thin, flexible folia. Blackish gray. H 1–2. G 6.36. A sulfostannate of lead. $PbS.SnS_2$. Montserrat, near Pasna, and elsewhere in Bolivia.

Teepleite. (*a*) AM 23, 90 (Feb. 1938). (*b*) Ab. MM 22, 629 (No. 134).
(*a*) Tetragonal. A hydrous borate and chloride of sodium. $Na_2B_2O_4.Na_2Cl_2.4H_2O$. Borax Lake, California. Not yet described. (*b*) "Synonym of burkeite and gauslinite."

Telegdite. DT 776. Ab. AM 13, 72 (Feb. 1928). MA 3, 369. Ab. MM 21, 578 (No. 122). CA 22, 47.
Masses. Yellow. H 2.5. G 1.09. A fossil resin. C, 76.93%; H, 10.17%; S, 1.73%; O, 11.17%. Szászcsór.

Tellurobismuthite. AM 8, 186 (Oct. 1923). Ab. MM 19, 351 (No. 98).
Same as tellurwismuth. Applied to rhombohedral Bi_2Te_3, as distinct from tetradymite, $Bi_2S_3.2Bi_2Te_3$.

Temiskamite. Ap. III, 76. DT 428. Ab. MM 17, 358 (No. 82). CA 8, 1253.
Radially fibrous masses. Silver-white. H 5.5. G 7.901. A nickel arsenide with small amounts of cobalt and sulfur. Ni_4As_3. Later proved to be identical with maucherite. Elk Lake, Ontario, Canada.

Terlinguaite. Ap. II, 104; III, 77. DT 468. Ab. MM 13, 377 (No. 62). CA 1, 2454.

Monoclinic. Small, elongated, prismatic crystals. Sulfur-yellow with greenish tinge, becoming olive-green on exposure. H 2–3. G 8.725. An oxychloride of mercury. Hg_2ClO, or a mercuric-mercurous oxychloride, HgO.HgCl. Terlingua, Texas.

Termierite. Ap. II, 105. DT 682. Ab. MM 13, 378 (No. 62).

A clay resembling halloysite. Gray. H 2. G 1.21. A hydrous silicate of aluminum. $Al_2O_3.6SiO_2.18H_2O$. Miramont, France.

Ternovskite. DT 577. Ab. AM 12, 326 (Aug. 1927). MA 3, 196. Ab. MM 21, 578 (No. 122). CA 21, 1238.

"An alkalic hornblende related to rhodusite, abriachanite, crocidolite and glaucophane." Ternovsky mines, Ukraine, Russia.

Terpitzite. Ab. MM 16, 373 (No. 77).

"A siliceous sinter passing into hornstone or chalcedony." Terpitz, Saxony, Germany.

Teruelite. Ap. I, 23. Ab. MM 12, 393 (No. 58).

A variety of dolomite occurring in black, acute rhombohedrons and basal planes. Teruel, Aragon, Spain.

Tetragophosphite. Ap. I, 67. Ab. MM 11, 336 (No. 53).

Four-sided, tabular crystals. Bright blue. A basic phosphate of aluminum, iron, manganese, magnesium, and calcium. Slightly more basic than lazulite. Horrsjöberg, Sweden.

Thalenite. Ap. I, 68. DT 620. Ab. MM 12, 393 (No. 58). MA 2, 25. CA 17, 2547.

Monoclinic. Tabular, prismatic crystals. Flesh-red, reddish violet. H 6–6.5. G 4.227–4.454. An yttrium silicate. $Y_2Si_2O_7$. Österby and Åskagen, Sweden; Hundholmen, Norway.

Thanite. Ab. MM 17, 359 (No. 82).

A mixture of kainite and halite. Werra district, Prussia, Germany.

Thelline. Thellite. Ap. II, 105. Ab. MM 12, 393 (No. 58).

The yttrium silicate described DS p. 512.

Thelotite. Ab. MM 13, 378 (No. 62).

An undetermined carbonaceous constituent of Boghead coal from Autun, France.

Titanbiotite. DT 664. AM 8, 186 (Oct. 1923). Ab. MM 19, 351 (No. 98). MA 2, 11.

Same as wodanite.

Titan-favas. Ap. II, 40. DT 500.

Rolled pebbles consisting almost entirely of TiO_2. Diamond sands of Brazil.

Titangarnet. Ab. MM 24, 624 (No. 158).

A titaniferous variety of garnet.

Titanhornblende. Ab. MM 24, 624 (No. 158).

A titaniferous variety of hornblende.

Titanhydroclinohumite. DT 630. Ab. AM 5, 136 (July 1920). MA 1, 106. Ab. MM 19, 351 (No. 98).

A titaniferous variety of clinohumite, formerly called titan-olivine. Also called hydroclinohumite. Ala Valley, Piedmont, Italy.

Titaniferous elpidite. MA 3, 235. CA 21, 1782.

Same as titano-elpidite.

Titanium-bearing jefferisite. AM 9, 113–116 (May 1924). MA 3, 57.

Brown plates. G 2.38. When roasted swells to fourteen times its original thickness. Westcliffe, Custer County, Colorado,

Titanmelanite. Ab. MM 14, 412 (No. 67).

Titaniferous melanite garnet approaching schorlomite in composition.

Titanmica. Ab. MM 24, 624 (No. 158)

A titaniferous mica.

Titanobiotite. DT 664. CA 20, 3409.

Same as wodanite.

Titano-elpidite. DT 581. AM 11, 295 (Nov. 1926). Ab. AM 12, 295 (July 1927). MA 3, 236. Ab. MM 21, 578 (No. 122).

Orthorhombic. Elongated crystals. Brown or rose-yellow. H 6.5. G 2.55. A titaniferous elpidite, in which titanium exceeds zirconium. Mount Chibina, Kola Peninsula, Russian Lapland.

Titanomagnetite. **Ab. AM 15, 203 (May 1930). Ab. MM 12, 393 (No. 58).**

"Cubic mixed crystals of magnetite in ilmenite." Titaniferous magnetite.

Titanpigeonite. **MA 6, 119. Ab. MM 24, 624 (No. 158). CA 32, 886.**

A variety of titanaugite related to pigeonite. Tikaisi, Island of Dogo, Oki Islands, Japan.

Titantourmaline. **Ab. MM 24, 624 (No. 158).**

A titaniferous tourmaline.

Tjuiamunite. **Ap. III, 81.**

Same as tyuyamunite.

Toddite. **DT 697. AM 11, 332–334 (Dec. 1926). MA 3, 271. Ab. MM 21, 579 (No. 122).**

Orthorhombic. Pitch-black. H 6.5. G 5.041. "The mineral conforms in a general way to the columbite formula and may be considered as columbite in which some manganese and iron is replaced by uranium, which is present in sufficiently important amount to justify making it a new species." Ellsworth. Sudbury district, Canada.

Todorokite. **Ab. AM 20, 678 (Sept. 1935). Ab. MM 24, 624 (No. 158). MA 6, 53. CA. 30, 1329.**

Monoclinic (?). Aggregates of very fine fibrous flakes. Black. Soft. G 3.67. A hydrous oxide of manganese, etc. $2(RO.MnO_2.2H_2O).3(Mn_2O_3.3MnO_2.2H_2O)$ with RO = MgO, CaO, BaO. $H_2O+9.72$, $H_2O-1.56$. Todoroki mine, Hokkaido, Japan.

Toernebohmite. **Ab. AM 6, 118 (July 1921). Ab. MM 19, 351 (No. 98). CA 15, 2402.**

Same as törnebohmite.

Tolypite. **Ap. III, 78. Ab. MM 16, 373 (No. 77).**

A chlorite occurring in small balls, built up of irregularly arranged fibers. Saxon Vogtland, Germany.

Tomite. **Ab. MM 20, 466 (No. 110).**

"A variety of coal showing algae in its micro-structure, from the river Tom, Tomsk. Siberia." Later called sapromyxite.

Torendrikite. **DT 577. Ab. AM 7, 212 (Dec. 1922). MA 1, 376. Ab. MM 19, 351 (No. 98). CA 17, 42.**

Monoclinic. Dark blue. H 5. G 3.2. "The first member of a distinct group of amphiboles, intermediate between those of richterite, imerinite and glaucophane." Approximately Na_2O.-4MgO.CaO.FeO.Fe_2O_3.10SiO_2. Itorendrika, Madagascar; near Tine, Wadai, French Equatorial Africa.

Törnebohmite. **DT 634. Ab. AM 6, 118 (July 1921). MA 1, 251. Ab. MM 19, 351 (No. 98). CA 24, 4244.**

Monoclinic (?). Green to olive. H 4.5. G 4.94. A hydro-fluo-silicate chiefly of the cerium metals and aluminum. (Ce, La,Nd,Al)$_3$(F,OH)(SiO_4)$_2$. Bastnäs, Sweden. Near cerite.

Torniellite. **MA 7, 12. CA 31, 7801.**

Amorphous. Clay-like. Yellowish or gray. H 2. G 2.432. "The mineral shows the properties of a reversible gel with 33.45–40.77% of SiO_2 and 30.94–38.55% Al_2O_3 depending on the water content. The composition is represented by $(OH)_8Al_4[Si_4O_{10}]$.-$2H_2O$. It is considered to be an early stage of the amorphous halloysite." Torniella, near Siena, Italy.

Torrensite. **Ap. II, 107. Ab. MM 12, 393 (No. 58). MM 14, 122 (No. 64).**

A mixture of rhodochrosite and rhodonite. Torrens mine, Hautes-Pyrenees, France.

Trachyaugite. **Ab. AM 12, 356 (Sept. 1927). MA 3, 199. Ab. MM 21, 579 (No. 122).**

A soda-pyroxene occurring as phenocrysts and needles, resembling egirine-augite, in Korea and the islands of the Japan Sea.

Trainite. **Ab. AM 1, 15 (July 1916). Ab. MM 18, 388 (No. 87). MA 2, 187.**

A trade name for a mixture of vashegyite with a colloidal zeolitic mineral near laubanite. Used as a gem stone. Also called sabalite. Originally described as "a banded variscite." Near Manhattan, Nevada.

Transvaal jade.

Same as garnet jade.

Traversite. DT 680. Ab. AM 12, 95 (Mar. 1927). MA 3, 369. Ab. MM 21, 579 (No. 122). CA 21, 217.

Dark brownish red. An alteration product of olivine or of iddingsite. "Undoubtedly iddingsite." Foshag. Not to be confused with traversoite. Sardinia.

Traversoite. DT 686. Ab. AM 10, 108 (Apr. 1925). MA 2, 521. Ab. MM 20, 466 (No. 110).

Amorphous. Porcelain-like. Light blue. A hydrous silicate of copper, calcium, and aluminum. $2(Cu,Ca)O.Al_2O_3.2SiO_2.12H_2O$. "A mixture of chrysocolla and gibbsite." Arenas, Sardinia.

Trechmannite. Ap. II, 107. DT 445. MM 14, 75 (No. 64); 14, 300–307 (No. 67). Ab. MM 14, 412 (No. 67). CA 1, 2785.

Rhombohedral. Trirhombohedral; minute crystals. Scarlet-vermilion. H 1.5–2. A sulfarsenite of silver. $AgAsS_2$. Binnenthal, Switzerland.

Trechmannite-alpha. DT 446. Ab. AM 5, 136 (July 1920). MM 18, 363–365 (No. 87). CA 14, 1279.

Hexagonal, rhombohedral. Small rounded crystals. Lead-gray. Isomorphous with trechmannite. Binnenthal, Switzerland.

Trevorite. DT 493. Ab. AM 8, 37 (Feb. 1923); 9, 98 (Apr. 1924). MA 2, 249. Ab. MM 20, 466 (No. 110). CA 17, 3851.

Massive. Black, with greenish tint. H 5. G 5.165. An oxide of nickel and iron. $NiO.Fe_2O_3$. Regarded by Walker as a ferrate of nickel, belonging to the spinel group. Barberton, Transvaal.

Trieuite. Ab. AM 21, 270 (Apr. 1936). MA 6, 152. Ab. MM 24, 625 (No. 158). CA 29, 7871.

Colloidal. Black. H 3.5. G 3.128. A hydrous oxide of cobalt and copper. $2Co_2O_3.CuO.6H_2O$. Differs from heterogenite in containing no CoO. Katanga, Belgian Congo.

Trigonite. DT 711. Ab. AM 6, 92 (May 1921). MA 1, 149. Ab. MM 19, 352 (No. 98). CA 15, 1475.

Monoclinic. Small wedge-shaped crystals. Sulfur-yellow. H 2–3. G 8.28. An acid arsenite of lead and manganese. $HPb_3Mn(AsO_3)_3$. Langban, Sweden.

Trihydrocalcite. **Ap. III, 79. Ab. MM 15, 432 (No. 72). CA 1, 1836.**

A mould-like incrustation on chalk-marl. A hydrous calcium carbonate. $CaCO_3.3H_2O$. Same as lublinite and pentahydrocalcite (?). Near Nova-Alexandria, Poland.

Trimontite. **Ab. MM 24, 625 (No. 158).**

A tungstate of calcium. $5CaO.3WO_3$. Later proved to be scheelite. Sannotake, Hukuoka, Japan.

Tripuhyite. **Ap. I, 70. DT 737. MM 11, 302 (No. 53). Ab. MM 11, 336 (No. 53).**

Microcrystalline aggregates. Dull greenish yellow. G 5.82. An iron antimonate. $Fe_2Sb_2O_7$. From the cinnabar-bearing gravels of Tripuhy, near Ouro Preto, Minas Geraes, Brazil.

Troegerite. **AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).**

Preferred spelling for trögerite, DS No. 665.

Trudellite. **DT 469. Ab. AM 11, 42 (Feb. 1926). MA 3, 112. Ab. MM 21, 579 (No. 122). CA 20, 1194.**

Hexagonal, rhombohedral. Compact masses. Amber-yellow. H 2.5. G 1.93. A hydrous basic chloride and sulfate of aluminum. $4AlCl_3.Al_2(SO_4)_3.4Al(OH)_3.30H_2O$. Near Pintados, Tarapaca, Chile.

Truffite. **Ab. MM 15, 432 (No. 72).**

Large nodular masses. A fibrous lignite which when struck emits an odor like that of truffles. Pont-Saint-Esprit, Gard, France.

Truscottite. **DT 641. Ab. AM 13, 202 (May 1928). Ab. MM 20, 466 (No. 110). CA 21, 3861.**

Spherical aggregates of scales. White. H 3.5. G 2.47. A hydrous silicate of calcium and magnesium. $2(Ca,Mg)O.3SiO_2.3H_2O$. Related to gyrolite. Benkulen, Sumatra.

Tschernichewite. **Ap. II, 108. DT 579. Ab. MM 14, 412 (No. 67). CA 1, 1677.**

A variety of soda-iron amphibole found in magnetite-bearing quartzite. Near arfvedsonite (or a variety of abriachanite. MA 2, 221). Northern Urals.

Tsilaisite. DT 636. AM 17, 476 (Oct. 1932). MA 4, 204. Ab. MM 22, 629 (No. 134).

(*a*) A variety of tourmaline, very rich in manganese. Nertschinsk, Siberia. (*b*) "A hypothetical molecule, $H_8Na_2Mn_6Al_{12}Si_{12}B_6O_{62}$, of the tourmaline group, to explain the composition of a manganiferous tourmaline (MnO about 6%) from Tsilaisina, Madagascar."

Tsumebite. Ap. III, 80. DT 715. Ab. MM 16, 374 (No. 77).

Orthorhombic (?). Small, tabular crystals. Emerald-green. H 3.5. G 6.1. A basic, hydrous phosphate of lead and copper. $5(Pb,Cu)O.P_2O_5.8H_2O$. Tsumeb, South West Africa.

Tuhualite. Ab. AM 18, 180 (Apr. 1933); 22, 1132 (Nov. 1937). MA 5, 295; 6, 536. Ab. MM 23, 638 (No. 146). CA 31, 3420.

Orthorhombic. Small, prismatic crystals. Dark blue to black, altering to greenish yellow. G 2.87. A silicate of sodium, potassium, aluminum, iron, etc. An amphibole. Tuhua Island, Mayor Island, New Zealand.

Tungstenite. DT 413. Ab. AM 3, 30 (Mar. 1918). Ab. MM 18, 388 (No. 87). MA 1, 205. CA 12, 344.

Monoclinic. Earthy or foliated; minute scales. Dark lead-gray. H 2.5. G 7.4. A sulfide of tungsten. Probably WS_2. Emma mine, Utah.

Tunnerite. Ab. MM 20, 467 (No. 110).

"Regarded as a colloidal psilomelane, or wad, with adsorbed zinc oxide."

Turanite. Ap. III, 80. DT 715. Ab. MM 15, 432 (No. 72). CA 3, 1974.

Compact, spongy, or radiating fibrous masses. A hydrous copper vanadate. $5CuO.V_2O_5.2H_2O$. Tyuya-Muyun, Ferghana district, Russian Turkestan.

Turite. DT 506. AM 5, 18 (Jan. 1920). MM 18, 339–348 (No. 86). Ab. MM 18, 388 (No. 87).

Spencer's spelling of the mineral turgite, DS No. 255, from the original locality, Turya River, Urals.

Turkestan volborthite. DT 727. Ab. AM 12, 380 (Oct. 1927). MA 3, 234. Ab. MM 21, 579 (No. 122). CA 21, 1783.

Amorphous. Greenish black. "The colloidal equivalent of tangeite." A vanadate of calcium and copper. Ferghana, Russian Turkestan.

Turyite. **AM 5, 18 (Jan. 1920).**

"Earliest correct spelling" for turgite, DS No. 255. Wherry. Ab.MM 19, 352 (No. 98): "This only adds to the existing confusion. It would be better to replace the name turgite by its synonym, hydrohematite." Spencer.

Tuxlite. **Ab. AM. 9, 18 (Jan. 1924). MA 2, 67. Ab. MM 20, 467 (No. 110). CA 17, 1403.**

Monoclinic. Massive. Pea-green. H 6.5. G 3.270. A combination of about equal amounts of diopside and jadeite. A silicate of sodium, magnesium, calcium, and aluminum. $NaMgCaAlSi_4O_{12}$. Tuxtla, Mexico. Known only in the Tuxtla statuette, dating from about 96 B.C. Previously called diopside-jadeite.

Tuyamunite. **Ap. III, 81.**

Same as tyuyamunite.

Tychite. **Ap. II, 108. DT 527. Ab. MM 14, 108 (No. 67).**

Isometric. Small octahedrons. White. H 3.5. G 2.588. A sulfato-carbonate of magnesium and sodium. $2MgCO_3.2Na_2CO_3.Na_2SO_4$. Borax Lake, San Bernardino County, California. Differs from northupite, with which it is found, in containing Na_2SO_4 in place of NaCl.

Tyuyamunite. **Ap. III, 81. DT 735. Ab. AM 12, 382 (Oct. 1927). MA 2, 404. Ab. MM 16, 374 (No. 77). CA 7, 1339.**

Orthorhombic. Small crystals or scales; earthy. Lemon-yellow. Soft. G 3.67–4.35. A hydrous vanadate of uranium and calcium. $CaO.2UO_3.V_2O_5.nH_2O$. Tyuya-Muyun, Ferghana, Russian Turkestan; Paradox Valley, and elsewhere in Colorado and Utah; Bisbee, Arizona.

U

Ugandite. **MM 22, 187 (No. 127). Ab. MM 22, 630 (No. 134).**

Same as bismutotantalite. Uganda.

Ugrandite. **Ab. MM 21, 579 (No. 122).**

A contraction of the names, uvarovite, grossularite, and andradite, for the series of garnets in which there is complete isomorphous replacement.

Uhligite. (*a*) **Ap. III, 81. DT 693. Ab. MM 15, 433 (No. 72).** (*b*) **Ab. MM 18, 388 (No. 87).**

(*a*) Isometric. Octahedrons. Black. A titanate and zirconate of calcium with aluminum titanate. $Ca(Zr,Ti)_2O_5$ with Al_2TiO_5. Lake Magad, Tanganyika Territory, East Africa., (*b*) Apparently given as an alternative name for gelvariscite, for the amorphous variscite of Leoben, Styria, and for gelfischerite of Roman-Gladna, Hungary.

Ulmite. **Ab. AM 8, 37 (Feb. 1923); 9, 34 (Feb. 1924). MA 1, 257. Ab. MM 19, 352 (No. 98). CA 16, 397.**

"A black film on sand grains. A hydrocarbon. $C_3H_4O_2\pm$. "A form of humus." Tweed Heads and elsewhere in New South Wales. Questionable.

Ulrichite. **DT 745. Ab. AM 11, 219 (Aug. 1926). MA 3, 106. Ab. MM 21, 579 (No. 122).**

Isometric. Pitch-black to grayish black. Uranium dioxide. "UO_2, but with some UO_3, PbO, etc. as a result of radioactive metamorphism." "Branchville, Connecticut pitchblende is given as typical ulrichite." It has been suggested that the original isometric substance of pitchblende is UO_2, ulrichite.

Ultrabasite. **DT 456. Ab. AM 6, 63 (Mar. 1921). MA 1, 149. Ab. MM 19, 352 (No. 98). CA 15, 1000.**

Orthorhombic. Crystals of tetragonal habit. Gray-black. H 5. G 6.026. A basic sulfantimonite of lead, silver, and germanium. $28PbS.11Ag_2S.3GeS_2.2Sb_2S_3$. Freiberg, Saxony, Germany.

Ungemachite. **Ab. AM 22, 207 (Mar. 1937). AM 23, 314–328 (May 1938). MA 6, 443. Ab. MM 24, 625 (No. 158). CA 32, 889.**

Rhombohedral. Thick, tabular crystals. Colorless to yellowish. H 2.5. G 2.287. A basic hydrous sulfate of sodium, potassium, and ferric iron. $Na_4(K,Fe''')_2(OH)(SO_4)_3.5H_2O$. Chuquicamata, Chile.

Ungvarite. **Ab. MM 21, 580 (No. 122).**

A variety of chloropal from Ungvar, Hungary (now Uzhorod, Carpathian Ruthenia, Czechoslovakia). A variant of unghwarite, DS p. 701.

Uranium-galena. **AM 20, 443 (June 1935). MA 6, 152.**

Galena containing uranium-lead of isotope Pb 206. Bedford, New York.

Uranolepidite. Ab. AM 19, 235 (May 1934). MA 5, 389. Ab. MM 23, 638 (No. 146). CA 28, 5783.

Biaxial, negative. Lamellar masses. Deep green. H 3–4. G 5.03. A hydrous copper uranate. $CuO.UO_3.2H_2O$. Identical with vandenbrandeite. Katanga, Belgian Congo.

Uranospathite. DT 735. MM 17, 221–236 (No. 81). Ab. MM 17, 359 (No. 82). CA 10, 32.

Orthorhombic; pseudotetragonal. Thin rectangular plates. Yellow or pale green. G 2.50. Probably a hydrated uranyl phosphate. Previously regarded as autunite. Compare bassetite. Redruth, Cornwall, England.

Uranospherite. AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).

Preferred spelling for uranosphaerite, DS No. 713.

Uranothorianite. Ab. MM 23, 638 (No. 146).

Name suggested for a mineral intermediate between uraninite and thorianite. $(U,Th)O_2$.

Urbanite. Ap. I, 70. DT 559. Ab. MM 11, 167 (No. 51); 11, 336 (No. 53).

Monoclinic. Pyramidal crystals. Brown. H 5–6. G 3.52. An iron-schefferite, resembling garnet. A silicate of calcium, magnesium, sodium, and iron. $(Ca,Mg)O.SiO_2.Na_2O.Fe_2O_3.4SiO_2$. Langban and Glakärn, Sweden.

Usbekite. CA 21, 3584.

Same as uzbekite.

Ussingite. Ap. III, 81. DT 551. Ab. MM 17, 359 (No. 82). MA 3, 103. CA 8, 3170.

Triclinic. Rolled masses. Reddish violet. H 6–7. G 2.495. A silicate of sodium and aluminum. $HNa_2Al(SiO_3)_3$. Shows certain relations to the zeolites. Kangerdluarsuk, Greenland; Kola Peninsula, Russian Lapland.

Utahlite. Ap. I, 71. DT 724. Ab. MM 11, 336 (No. 53).

A compact, nodular variscite from near Lewiston, Cedar Valley, Utah.

Uvanite. Ap. III, 81. DT 736. Ab. MM 17, 359 (No. 82). CA 9, 426.

Orthorhombic. Fine granular. Brownish yellow. A hydrous uranium vanadate. $2UO_3.3V_2O_5.15H_2O$. Emery County, Utah.

Uvite. DT 636. AM 17, 473–475 (Oct. 1932). MA 4, 204. Ab. MM 22, 630 (No. 134).

A hypothetical molecule of the tourmaline group to explain the composition of magnesia-lime tourmaline. $H_8Ca_2Mg_8Al_{10}Si_{12}B_6O_{62}$. Uva, Ceylon.

Uxporite. MM 24, 625 (No. 158). CA 26, 5879.

Same as yuksporite.

Uzbekite. DT 715. Ab. AM 12, 96 (Mar. 1927); 14, 79 (Feb. 1929). MA 3, 234. Ab. MM 21, 580 (No. 122).

Crusts of fine needles. A basic hydrous vanadate of copper. **Alpha-uzbekite** is dark green. $2CuO.V_2O_5.3H_2O$. **Beta-uzbekite,** pale green. $3CuO.V_2O_5.4H_2O$. Uzbekistana, Ferghana, Russian Turkestan.

V

Valleite. Ap. I, 71. Ab. MM 11, 228 (No. 52); 11, 336 (No. 53).

Orthorhombic. Prismatic crystals. Colorless or pale red. H 4.5. G 2.88. A silicate of magnesium and calcium. (Mg, Ca)$O.SiO_2$. A variety of anthophyllite, accompanying hexagonite. Edwards, New York.

Vanadioardennite. AM 12, 222 (May 1927). MA 2, 44. Ab. MM 20, 467 (No. 110). CA 16, 3837.

The vanadiferous end member of the ardennite series, as distinguished from arsenioardennite.

Vanadio-laumontite. DT 649. Ab. AM 12, 97 (Mar. 1927). MA 2, 299. Ab. MM 20, 467 (No. 110).

Botryoidal. Yellow-red. A vanadiferous variety of laumontite, containing 2.5% V_2O_5. Ferghana, Russian Turkestan.

Vanado-magnetite. Ab. AM 22, 811 (June 1937). MA 6, 489.

Light gray. A magnetite containing 0.59 to 4.84% vanadous oxide. Assumed to be $FeO.(Fe,V)_2O_3$. Later called coulsonite. Northeastern India.

Vanadous acmite. MA 3, 374.

A variety of acmite containing vanadous oxide. $Na_2O.V_2O_3.4SiO_2$.

Vandenbrandeite. Ab. AM 18, 179 (Apr. 1933). MA 5, 292. Ab. MM 23, 638 (No. 146). CA 27, 3167.

Triclinic (?). Minute crystals. Dark green. H 4. G 4.91–4.97. A hydrous uranate of copper. $2CuO.2UO_3.5H_2O$. Katanga, Belgian Congo.

Vandiestite. Ab. MM 13, 378 (No. 62).

Same as von Diestite.

Vanoxite. DT 510. Ab. AM 10, 40 (Feb. 1925). MA 2, 420. Ab. MM 20, 467 (No. 110).

Minute rhombic crystals; compact. Black. Probably a hydrous vanadyl vanadate. $2V_2O_4.V_2O_5.8H_2O$. Montrose County, Colorado.

Vanthoffite. Ap. II, 109; III, 81. DT 748. Ab. MM 13, 378 (No. 62). CA 2, 1381.

Crystalline. Colorless. A sulfate of sodium and magnesium. $3Na_2SO_4.MgSO_4$. Wilhelmshall, near Stassfurt, Prussia, Germany.

Varulite. Ab. AM 22, 876 (July 1937). MA 6, 486. CA 31, 3829.

Granular masses. Dull olive-green. G 3.581. A phosphate of sodium, manganese, iron, and calcium. $Na_2O.5(Mn,Fe,Ca)O.2P_2O_5$. Varuträsk, Sweden.

Vashegyite. Ap. III, 82. DT 731. Ab. MM 15, 433 (No. 72). MA 2, 187. CA 4, 1280.

Colloidal. White, yellow, rust-brown. H 2–3. G 1.964. A basic aluminum phosphate. $4Al_2O_3.3P_2O_5.30H_2O$. Vashegy, Hungary; near Manhattan, Nevada. Compare trainite.

Vaterite. Ap. III, 82. DT 513. MA 3, 168. Ab. MM 16, 374 (No. 77).

Two forms of artificial calcium carbonate, in spherules, are designated respectively vaterite A and vaterite B. G 2.6. Less stable than aragonite and calcite.

Vauxite. DT 730. AM 7, 108 (June 1922). Proc. Acad. Nat. Sc. Phila. LXXV, 261, 1923. MA 2, 148. Ab. MM 20, 467 (No. 110). CA 16, 3454.

Triclinic. Small, tabular crystals. Sky-blue to venetian blue. H 3.5. G 2.45. A basic hydrous phosphate of iron and aluminum. $FeO.Al_2O_3.P_2O_5.6H_2O$. Llallagua, Bolivia.

Veatchite. AM 23, 409–411 (June 1938).

Monoclinic. In cross-fiber veins. White. H 2. G 2.69. A hydrous borate of calcium. $Ca_2B_6O_{11}.2H_2O$. Lang, California.

Vegasite. DT 769. MA 1, 205. Ab. MM 17, 359 (No. 82). CA 9, 2633.

Hexagonal. Minute six-sided plates. Cryptocrystalline. Straw-yellow. G 3.458. A basic sulfate of lead and iron with a little aluminum. $Pb[Fe(OH)_2]_4(SO_4)_3 + 10\%$ colloidal $(Fe, Al)(OH)_3$. Near Las Vegas, Nevada.

Velardeñite. Ap. III, 82. DT 607. Ab. MM 17, 359 (No. 82). MA 1, 258; 2, 190. CA 10, 2185.

Tetragonal. G 3.038. A member of the melilite group. A silicate of calcium and aluminum. $2CaO.Al_2O_3.SiO_2$. Velardeña mining district, Mexico; Tulare County, California.

Vendeennite. Ab. MM 17, 360 (No. 82).

A fossil resin from the coal measures of Vendée, France.

Venturaite. Ab. MM 12, 393 (No. 58).

A name proposed in connection with a suggested new classification of petroleum, bitumen, etc.

Verdite. Ab. MM 15, 433 (No. 72): 16, 374 (No. 77).

A trade name for an ornamental stone of a rich chrome-green color, containing fuchsite and some argillaceous material.

Vernadskiite. CA 9, 774.

Same as vernadskite.

Vernadskite. Ap. III, 82. DT 766. Ab. MM 16, 374 (No. 77).

Aggregates of minute crystals. Green. H 3.5. G greater than 3.3. A basic hydrous sulfate of copper. $3CuSO_4.Cu(OH)_2.4H_2O$. An alteration product of dolerophanite. Vesuvius, Italy.

Vernadskyite. DT 766.

Same as vernadskite.

Verobieffite. CA 5, 1049.

A variety of beryl found in tabular crystals at Lipowaja, Urals. It contains 3.10% Cs_2O, 1.39% Li_2O. See vorobyevite.

Vestanite. Ab. MM 12, 393 (No. 58).

Same as westanite, DS p. 499.

Vesuvian-jade. **MM 24, 623 (No. 158).**
A jade-like variety of vesuvianite (idocrase). Also called californite.

Viellaurite. **Ap. II, 110. Ab. MM 12, 393 (No. 58): 14, 122 (No. 64).**
An intimate mixture of rhodochrosite and tephroite.

Vierzonite. **Ab. MM 13, 378 (No. 62).**
(*a*) A yellow ocherous clay from Vierzon, France. (*b*) A pulverulent opal from same locality. Name subsequently changed to grossouvreite.

Vilatéite. **Ap. III, 82. DT 723. Ab. MM 16, 374 (No. 77). CA 8, 3172.**
Monoclinic. Crystals. Violet. H 3–4. G 2.745. A hydrous phosphate of iron, with a little manganese. Near to or identical with strengite. La Vilaté, Haute-Vienne, France.

Villamaninite. **DT 437. Ab. AM 5, 168 (Sept. 1920). MM 19, 14–18 (No. 88). MA 1, 24 and 260. Ab. MM 19, 352 (No. 98). CA 14, 2145.**
Isometric. Small cubo-octahedral crystals and radiating nodular masses. Iron-black. H 4.5. G 4.43–4.52. A disulfide of copper, nickel, cobalt, and iron with 1.5% selenium. (Cu, Ni,Co,Fe)$(S,Se)_2$. Thomson suggests that it is a mixture. Near Villamanin, Spain.

Villiaumite. **Ap. II, 110. DT 461. Ab. MM 15, 433 (No. 72). MA 3, 339. CA 2, 1107.**
Isometric. Small crystals and grains in nepheline-syenite. Deep carmine. Soft. G 2.8. Sodium fluoride. NaF. Islands of Los, French Guinea.

Violaite. **Ap. II, 110. DT 431. Ab. MM 13, 378 (No. 62).**
A highly pleochroic pyroxene from the Caucasus Mts.

Violarite. **DT 431. Ec. Geol. XIX, 4, 318, 319 (June–July 1924) and XIX, 6, (Sept–Oct. 1924). Ab. AM 10, 133 (May 1925). AM 14, 103 (Mar. 1929); 15, 1–22 (Jan. 1930). MA 2, 338; 4, 335. Ab. MM 20, 467 (No. 110). CA 24, 4482.**
Isometric. Nodules. Violet-gray. H 3.5–4. A sulfide of nickel and iron. Possibly $(Ni,Fe)_3S_4$, or $FeS.Ni_2S_3$. Sudbury, Ontario, Canada; Clark County, Nevada; Alaska; Julian, California.

Viridine. Ap. III, 83. DT 615. MA 1, 395. Ab. MM 16, 374 (No. 77). CA 13, 2836.

A green variety of andalusite, containing some iron and manganese, replacing aluminum. Wülfing regards it as a distinct species. Darmstadt, Germany. Compare manganandalusite. Not to be confused with viridite, an iron silicate, DS p. 664 and the following.

Viridite. (*a*) See DS p. 664. (*b*) DT 673. Ab. AM 4, 61 (May 1919). Ab. MM 18, 388 (No. 87). MA 1, 254.

Monoclinic. Compact, scales and needles. Leek-green. H 3-3.5. G 2.89. A hydrous silicate of iron. $4FeO.2SiO_2.3H_2O$. Sternberg, Moravia; Bennisch, Silesia, Germany. Not to be confused with viridine above.

Vishnevite. Ab. MM 23, 639 (No. 146).

The original spelling of wischnewite.

Viterbite. DT 684. Ab. AM 13, 492 (Sept. 1928). MA 3, 130. Ab. MM 21, 580 (No. 122). CA 20, 3668.

Isotropic. Pulverulent masses. Chocolate colored or white. H 2.5. G 1.9. "A silicophosphate of aluminum." "Apparently a mixture of allophane and wavellite." Santa Rosa de Viterbo, Colombia.

Vitrain. AM 5, 16 (Jan. 1920). Ab. MM 18, 379 (No. 87).

A variety of coal with conchoidal fracture and brilliant appearance.

Vittinkite. MM 24, 626 (No. 158).

Same as wittingite.

Voelckerite. Ap. III, 83. DT 704. Ab. MM 16, 375 (No. 77). MM 17, 155–162 (No. 80). CA 6, 2050; 9, 1289.

Hexagonal. H 5. G 3.06. Supposed to be a basic calcium phosphate. $3Ca_3(PO_4)_2.CaO$. A member of the apatite group. Identical with oxy-apatite. Calaveras Valley, Santa Clara County, California.

Vogtite. Ap. II, 110. Ab. AM 7, 198 (Nov. 1922). MM 18, 368 (No. 87). Ab. MM 18, 389 (No. 87). CA 1, 833.

Triclinic. Elongated crystals. Pale amber. A silicate of iron, manganese, magnesium, and calcium. $(Fe,Mn,Ca,Mg)SiO_3$. "From acid steel-furnace slags." Near rhodonite. Compare sobralite.

Volchonskoite. DT 681.
Same as wolchonskoite, DS p. 696.

Von Diestite. Ap. II, 110. Ab. MM 12, 393 (No. 58); 13, 379 (No. 62).
Massive. In threads. A telluride of silver and bismuth, with some gold and lead. Sierra Blanca, Colorado.

Vonsenite. DT 741. AM 5, 141 (Aug. 1920). MA 1, 122. Ab. MM 19, 353 (No. 98). CA 14, 3047.
Orthorhombic (?). Coarse granular masses. Black. H 5. G 4.21. A borate of ferrous and ferric iron and magnesium. $3(Fe,Mg)O.B_2O_3.FeO.Fe_2O_3$. Riverside, California.

Vorobyevite. Ap. III, 83. DT 580. Ab. MM 15, 433 (No. 72).
A variety of beryl containing caesium. White or rose colored. Same as morganite. Lipowka, Urals; Madagascar.

Vrbaite. Ap. III, 83. DT 445. Ab. MM 16, 375 (No. 77). CA 7, 750.
Orthorhombic. Small, tabular or pyramidal crystals. Gray-black in larger crystals, dark red in thin splinters. H 3.5. G 5.3. A thallium sulfarsenite and sulfantimonite. $Tl_2S.3(As, Sb)_2S_3$. Intergrown with realgar and orpiment. Allchar, near Salonika, Macedonia.

Vredenburgite. Ap. III, 83. DT 487. Ab. MM 15, 434 (No. 72). CA 3, 1513.
Isometric or tetragonal. Cleavable. Bronze-gray. H 6.5. G 4.74–4.85. Oxides of iron and manganese. $3Mn_3O_4.2Fe_2O_3$. Madras and Nagpur district, India.

Vudyavrite. MA 6, 341. Ab. MM 24, 626 (No. 158). CA 32, 887.
Amorphous. Glassy. Yellowish. G 2.40–2.50. An alteration product of lovchorrite. A hydrous titano-silicate of cerium and calcium. $Ce_2(TiO_3)_3.5(Ca,H)SiO_3.aq$. Chibina tundra, Kola Peninsula, Russian Lapland.

W

Walaite. Ab. MM 12, 393 (No. 58).
Same as valaite, DS p. 1051.

Wardite. Ap. I, 71. DT 730. MA 4, 343. Ab. MM 11, 226 (No. 52); 11, 336 (No. 53).

Tetragonal (?). Encrusting layers, oolitic and crystallized. Light bluish green. H 5. G 2.77–2.81. A basic hydrous phosphate of aluminum, sodium, and calcium. $2Na_2O.CaO.6Al_2O_3.4P_2O_5.17H_2O$. Cedar Valley and near Fairfield, Utah.

Warrenite. Ab. MM 24, 626 (No. 158).

(*a*) A pink variety of smithsonite containing 10.25% CoO. Boléo, Lower California, Mexico. Identical with cobalt-smithsonite, Ab. MM 22, 617 (No. 134). (*b*) Not warrenite, DS No. 126, nor (*c*) the hydrocarbon of same name, Ab. MM 12, 393 (No. 58).

Warthaite. DT 455. Ab. AM 11, 219 (Aug. 1926). MA 3, 7. Ab. MM 21, 580 (No. 122). CA 20, 3409.

Radially fibrous bundles. Steel-gray. G 7.163. A sulfobismuthite of lead, copper and silver. $4(Pb,Cu,Ag)S.Bi_2S_3$. Probably identical with goongarrite. Vaskö, Hungary.

Warthite. Ab. MM 20, 468 (No. 110).

Same as bloedite.

Webnerite. Ap. I, 72. DT 446. MM 11, 286 (No. 53). Ab. MM 11, 337 (No. 53).

Identical with andorite. Oruro, Bolivia.

Weibullite. Ap. III, 84. DT 447. Ab. AM 8, 36 (Feb. 1923). Ab. MM 16, 375 (No. 77). CA 8, 2663.

Differs from galenobismutite in possessing two distinct cleavages. Steel-gray. H 3. G 6.97. A sulfobismuthite and sulfoselenite of lead. $2PbS.Bi_2S_3.Bi_2Se_3$. Originally described (1885) as a seleniferous variety of galenobismutite. May be a mixture of cosalite and guanajuatite. Falun, Sweden.

Weidgerite. Ab. MM 16, 375 (No. 77).

Same as wiedgerite.

Weinbergerite. Ap. II, 111. DT 579. Ab. MM 14, 413 (No. 67).

Orthorhombic. Spherical aggregates of radiating fibers. Black. Harder than glass. A silicate chiefly of sodium, aluminum, and iron. $NaAlSiO_4.3FeSiO_3$. Kodaikanal, India.

Weinschenkite. (*a*) **DT 723. Ab. AM 9, 34 (Feb. 1924). MA 2, 12 and 522. Ab. MM 20, 468 (No. 110). CA 17, 706.** (*b*) **DT 576. Ab. AM 11, 167 (June 1926). MA 2, 221.**

(*a*) Monoclinic. In globules, composed of minute radiated needles. White. A hydrous phosphate of yttrium and erbium. $(Y,Er)PO_4.2H_2O$. Amberg-Auerbach mine, Bavaria, Germany. (*b*) A magnesium-calcium hornblende. Brownish black. Poor in FeO, but rich in sesquioxides and water.

Weisbachite. DT 749. Ab. AM 15, 253 (May 1930). Ab. MM 21, 580 (No. 122).

A variety of anglesite containing barium sulfate. $5PbSO_4.BaSO_4$. Chile. Probably the same as hokutolite, which, however, is regarded as a lead-bearing barite.

Weissite. DT 415. Ab. AM 12, 380 (Oct. 1927). MA 3, 367. Ab. MM 21, 580 (No. 122). CA 21, 1948.

Massive. Bluish black. H 3. G about 6.0. A telluride of copper. Cu_5Te_3. Vulcan, Colorado. Not weissite of H. G. Trolle-Wachtmeister, DS p. 421.

Weldite. Ap. I, 72. Ab. MM 11, 337 (No. 53); 13, 379 (No. 62).

Amorphous. White. H 5.5. G 2.98. A silicate of aluminum and sodium. Weld River, Upper Huon, Tasmania.

Wellsite. Ap. I, 72; III, 84. DT 646. Ab. MM 11, 337 (No. 53).

Monoclinic. In complex twins. Colorless to white. H 4–4.5. G 2.278–2.366. A hydrous silicate of calcium, barium, strontium, potassium, sodium, and aluminum. $(Ca,Ba,Sr,K_2,Na_2)O.Al_2O_3.3SiO_2.3H_2O$. A barium-bearing phillipsite. Buck Creek, Clay County, North Carolina; Kurzy, Crimea, Russia.

Wentzelite. CA 19, 2795.

Same as wenzelite.

Wenzelite. DT 720. Ab. AM 11, 44 (Feb. 1926). MA 2, 221. Ab. MM 20, 468 (No. 110).

Monoclinic. Rosettes of small, prismatic crystals. Pale rose-red. A hydrous phosphate of manganese, iron, and magnesium. $(Mn,Fe,Mg)_3(PO_4)_2.5H_2O$ (?), Hagendorf, Bavaria, Germany.

Weslienite. DT 737. Ab. AM 9, 174 (Aug. 1924). MA 2, 252; 5, 322. Ab. MM 20, 468 (No. 110). CA 18, 2306; 27, 5686.

Isometric. Minute octahedral crystals. Honey-yellow, to resinous brown. H 6.5. G 4.967. An antimonate of sodium, iron, and calcium, $Na_2FeCa_3Sb_4O_{15}$. Later proved to be identical with atopite. Langban, Sweden.

Wetherilite. Ab. MM 17, 360 (No. 82).

(*a*) A difficultly fusible bitumen from Canada. (*b*) Synonym of hetaerolite and wolftonite.

Whartonite. Ap. I, 72. Ab. MM 11, 337 (No. 53).

A nickeliferous pyrite. Sudbury, Ontario, Canada.

Wickelkamazite. Ap. I, 72. Ab. MM 12, 393 (No. 58).

The kamacite surrounding accessory constituents in meteoric irons.

Wiedgerite. Ab. MM 16, 375 (No. 77).

Trade name for a soft bitumen resembling elaterite, but containing much sulfur and water.

Wiikite. Ap. III, 84. DT 698. Ab. MM 13, 379 (No. 62). MA 4, 249; 6, 478. CA 2, 2193; 3, 41.

Orthorhombic. Usually massive. Black to yellow. Resembles euxenite. H 5–6. G 3.750–4.997. Proved to be an isomorphous mixture of alpha-wiikite, a niobate of calcium and uranium, $Ca_3U(HNbO_5)_3$, and beta-wiikite, a niobate of yttrium, $Y_4(HNbO_5)_3$. Impilaks, Finland.

Wilkeite. Ap. III, 85. DT 706. Ab. MM 17, 360 (No. 82). CA 8, 1557.

Hexagonal. Small crystals. Rose-red, yellow. H 5. G 3.23. A member of the apatite group containing calcium silicate, sulfate, carbonate, and oxide in addition to phosphate. $3Ca_3(PO_4)_2.CaCO_3.3Ca_3[(SiO_4)(SO_4)].CaO$. Crestmore, California.

Willyamite. Ap. I, 73. DT 437. Ab. MM 11, 236 (No. 52); 11, 337 (No. 53).

Described as an isometric cobalt-nickel sulfide and antimonide; but shown to be a mixture. Broken Hill, New South Wales.

Wiltshireite. Ap. III, 85. DT 448. MM 16, 121–123 (No. 74); 16, 197–206 (No. 75). Ab. MM 16, 375 (No. 77). MA 6, 154. CA 5, 1043.

"Untwinned rathite." Binnenthal, Switzerland.

Winchellite. Ab. MM 18, 389 (No. 87). MM 21, 245 (No. 117).
Same as lintonite.

Winchite. Ap. II, 111; III, 85. DT 574. Ab. MM 14, 413 (No. 67). CA 4, 735.
A blue amphibole, near tremolite, but containing also iron, sodium, potassium, and manganese. Central India.

Wischnewite. Ab. AM 17, 252 (June 1932). MA 4, 499. Ab. MM 22, 630 (No. 134).
Hexagonal (?). Pale blue. A sulfatic cancrinite, in which nearly all of its CO_2 is replaced by SO_3. $3Na_2Al_2Si_2O_8.Na_2SO_4.3H_2O$. Wischnewye Gory, Southern Ural.

Wittite. DT 448. Ab. AM 10, 179 (July 1925). MA 2, 340. Ab. MM 20, 468 (No. 110). CA 18, 2668.
Orthorhombic or monoclinic. Lead-gray. H 2–2.5. G 7.12. A sulfo- and seleno-bismuthite of lead. $5PbS.3Bi_2(S,Se)_3$. Falun, Sweden.

Wodanite. DT 664. Ab. AM 7, 197 (Nov. 1922). MA 2, 11. Ab. MM 19, 353 (No. 98). CA 20, 3409.
A titaniferous variety of biotite. Contains 11–12.5% TiO_2. Katzenbuckel, Baden, Germany.

Woehlerite. AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).
Preferred spelling for wöhlerite, DS No. 333.

Wolftonite. Ap. III, 85. DT 495. Ab. MM 16, 376 (No. 77).
Identical with hydrohetaerolite. $2ZnO.2Mn_2O_3.H_2O$. Wolftone mine, Leadville, Colorado.

Wölkerite. Ab. MM 20, 468 (No. 110).
Error for voelckerite, Ap. III, 83; DT 704.

Woodhouseite. AM 22, 939–948 (Sept. 1937). MA 7, 13. CA 32, 4479.
Hexagonal, rhombohedral. Crystals, often pseudocubic. Colorless to flesh-color. H 4.5. G 3.012. A basic hydrous sulfate-phosphate of calcium and aluminum. $2CaO.3Al_2O_3.P_2O_5.2SO_3.6H_2O$. White Mountain, Mono County, California.

Worobewite. Ap. III, 86.
Same as vorobyevite.

Worobieffite. Ap. III, 86. Ab. MM 15, 434 (No. 72).
Same as vorobyevite.

Wotanite. MM 24, 626 (No. 158).
Same as wodanite.

Wudjavrite. MM 24, 626 (No. 158). CA 31, 6141.
Same as vudyavrite.

Wüstite. MA 5, 252 and 470; 6, 352. Ab. MM 23, 639 (No. 146).
Artificial ferrous oxide, FeO, containing excess of oxygen due to the presence of Fe_3O_4 in solid solution.

X

Xalostocite. Ap. II, 112. DT 596. Ab. MM 14, 413 (No. 67).
A rose-pink variety of grossularite garnet. Aiso called rosolite and landerite. Xalostoc, Morelos, Mexico.

Xanthochroite. DT 426. Ab. AM 3, 158 (July 1918). AM 6, 1–3 (Jan. 1921). MA 1, 378. Ab. MM 18, 389 (No. 87). CA 20, 884.
Amorphous cadmium sulfide, as a thin coating on sphalerite. $CdS + xH_2O$. Related to greenockite, possibly its isometric modification.

Xanthotitane. Ab. MM 12, 393 (No. 58).
The correct form of xanthitane, DS p. 716.

Xanthoxenite. DT 732. Ab. AM 6, 68 (Mar. 1921). MA 1, 125. Ab. MM 19, 353 (No. 98). CA 15, 1002.
Monoclinic. Thin plates. Wax-yellow. G 2.844. A basic ferric phosphate, with FeO, MnO, CaO, MgO, Al_2O_3. Near beraunite. Rabenstein, Bavaria, Germany.

Xiphonite. Ap. I, 74. Ab. MM 11, 168 (No. 51); 11, 337 (No. 53).
A variety of amphibole. Monoclinic. Minute prismatic crystals. Honey-yellow. Xiphonia, Etna, Sicily.

Y

Yamagutilite. Ab. MM 24, 626 (No. 158). CA 31, 975.
A variety of zircon containing 4.23% P_2O_5, 15.89% rare earths, about 3.4% HfO_2. Yamaguti, Nagano, Japan.

Yeatmanite. Ab. AM 23, 176 (Mar. 1938). MA 7, 14.
Triclinic. Pseudo-orthorhombic, crystalline plates. Clove-brown. H 4. G 4.80. A silico-antimonate of manganese and zinc. $(Mn,Zn)_{16}Sb_2Si_4O_{29}$. Franklin, New Jersey.

Yttrium-apatite. **Ab. MM 12, 394 (No. 58).**

Apatite containing Y_2O_3 (3.36%), cerium, etc. South Greenland.

Yttrocalcite. **Ab. MM 14, 413 (No. 67).**

Described as a fluoride of calcium, yttrium and cerium, but later found to be identical with fluor-apatite.

Yttrocrasite. **Ap. II, 112. DT 693. Ab. MM 14, 413 (No. 67). CA 1, 283.**

Orthorhombic. Crude crystals resembling yttrotantalite, DS p. 738. Black. H 5.5–6. G 4.8043. A hydrous titanate of the yttrium earths, thorium, uranium, etc. Burnet County, Texas.

Yttrofluorite. **Ap. III, 86. DT 464. Ab. MM 16, 376 (No. 77). CA 9, 575.**

Isometric. Granular masses. Yellow, brown or green. H 4.5. G 3.55. A variety of fluorite containing 17% yttrium earths. $(Ca_3,Y_2)F_6$. Hundholmen, Norway.

Yttro-orthite. **Ab. MM 23, 639 (No. 146).**

A variety of orthite containing 8% Y_2O_3.

Yukonite. **Ap. III, 86. DT 732. Ab. MM 17, 360 (No. 82). CA 8, 1944.**

Amorphous. Irregular concretions. Brownish black. H 2–3. G 2.8. A basic hydrous arsenate of calcium and ferric iron. $(Ca_3,Fe'''_2)(AsO_4)_2.2Fe''(OH)_3.5H_2O$. Tagish Lake, Yukon Territory, Canada.

Yuksporite. **DT 567. AM 11, 295–296 (Nov. 1926). Ab. AM 12, 58 (Feb. 1927). MA 2, 264; 3, 111; 6, 285. CA 22, 4412.**

Fibrous and lamellar. Pale rose-red. H 5. G 3.06. A hydrous titano-silicate of calcium, sodium, potassium, etc. $2R'_2O.4R''O.7SiO_2.2TiO_2.H_2O$, where R'_2 = Na, or K and R'' = Ca, Sr, or Ba. Near pectolite, but containing more sodium and potassium. Yukspor, Kola Peninsula, Russian Lapland.

Z

Zamboninite. (*a*) **DT 685. Ab. MM 16, 376 (No. 77).** (*b*) **DT 464. Ab. AM 15, 275 (July 1930). MA 4, 249. Ab. MM 22, 630 (No. 134). CA 25, 2941.** (*c*) **Ab. AM 19, 556 (Nov. 1934).**

(*a*) Massive. Resembles nontronite. Yellowish green. Soft. G 2.29. A hydrous silicate of iron. $Fe_2Si_3O_9.2H_2O$. Nontron,

Dordogne, France. Same as müllerite. (*b*) Orthorhombic (?). Radiating fibers. White. G 2.98–3.00. A fluoride of calcium and magnesium. $CaF_2.2MgF_2$. Monti Rossi, Etna, Sicily, Italy. (*c*) Shown to be a mixture of fluorite and sellaite.

Zebedassite. **DT 673. Ab. AM 4, 120 (Sept. 1919). MA 1, 25. Ab. MM 18, 389 (No. 87). CA 13, 1992.**

Orthorhombic (?). Fibrous aggregates. White. H 2. G 2.194. A hydrous silicate of magnesium and aluminum. $H_8Al_2Mg_5(SiO_4)_6$. Zebedassi, Piedmont, Italy.

Zeolite mimetica. **Ap. II, 113. Ab. MM 14, 413 (No. 67). CA 1, 284.**

Same as dachiardite.

Zeophyllite. **Ap. II, 113; III, 87. DT 641. Ab. MM 13, 379 (No. 62).**

Rhombohedral. Spherical, radiated foliated. White. H 3. G 2.764. A hydro-fluo-silicate of calcium and iron. $H_4Ca_4Fe_2Si_3O_{11}$. Gross-Priesen, Bohemia.

Zeyringite. **Ap. II, 114. DT 522. Ab. MM 14, 414 (No. 67).**

A finely fibrous calcareous sinter, containing nickel. Greenish white to sky-blue. Probably aragonite. Zeyring, Styria.

Zeyssatite. **Ap. III, 56.**

Same as tripolite, France.

Ziegelite. **Ab. MM 12, 394 (No. 58).**

Same as ziegelerz or tile ore, a variety of cuprite.

Zillerite. **Ab. MM 17, 360 (No. 82). CA 8, 647; 10, 581.**

A variant of zillerthite, the matted fibrous asbestus, or mountain cork.

Zinc-copper chalcanthite. **DT 762. Ab. AM 7, 74 (Apr. 1922). MA 1, 121. Ab. MM 19, 353 (No. 98).**

Triclinic. A fine aggregate. Pale blue. A hydrous sulfate of zinc, copper, and iron. $(Zn,Cu,Fe)SO_4.5H_2O$. A natural dehydration product of zinc-copper melanterite. Gunnison County, Colorado.

Zinc-copper melanterite. **DT 761. Ab. AM 7, 74 (Apr. 1922). MA 1, 121. Ab. MM 19, 353 (No. 98).**

Monoclinic (?). Columnar, massive. Greenish blue. H 2. G 2.02. A hydrous sulfate of zinc, copper, and iron. $(Zn,Cu,Fe)SO_4.7H_2O$. Gunnison County, Colorado.

Zinc-dibraunite. Ab. MM 17, 360 (No. 82). CA 9, 1446.

A soft, earthy, chocolate-colored mineral in calamine ores. A zinc-bearing braunite. $ZnO.2MnO_2.2H_2O$. Olkush, Russia. Chalcophanite is a zinc-dibraunite with partial replacement of Zn by Mn.

Zinc-manganese-cummingtonite. AM 15, 340 (Aug. 1930). Ab. MM 22, 630 (No. 134). MA 4, 345.

Monoclinic. Large prisms. G 3.44. A silicate of magnesium, iron, zinc, and manganese. $H_2(Mg,Fe,Zn,Mn)_7(SiO_3)_8$. A zinc-bearing amphibole. Franklin, New Jersey.

Zinc-melanterite. Ab. AM 7, 74 (Apr. 1922). Ab. MM 19, 353 (No. 98).

A member of the monoclinic melanterite group, in which iron is partially replaced by zinc.

Zincoferrite. AM 8, 186 (Oct. 1923). Ab. MM 19, 353 (No. 98).

Same as franklinite.

Zincorhodochrosite. Ab. MM 16, 376 (No. 77).

A variety of rhodochrosite containing much zinc (ZnO, 31.03%). Elba.

Zincorodocrosite. Ap. III, 87. DT 520.

Same as zincorhodochrosite.

Zincosite. AM 9, 62 (Mar. 1924); 21, 189 (Mar. 1936).

Preferred spelling for zinkosite, DS No. 723.

Zinc-roemerite. Ap. II, 114. Ab. MM 13, 379 (No. 62).

Roemerite in which ferrous iron is replaced in part by zinc. Harz, Germany.

Zinc-schefferite. Ap. II, 85. Ab. MM 12, 394 (No. 58).

Foliated masses. G 3.31. Schefferite containing some zinc. Franklin, New Jersey.

Zinc-teallite. DT 458. Ab. AM 12, 381 (Oct. 1927). MA 3, 272; 5, 167. Ab. MM 21, 581 (No. 122). CA 21, 3329.

A zinciferous teallite. $(Pb,Zn)SnS_2$. Mines of Carguaycollo, Bolivia. Originally called pufahlite. Name later transferred to a hypothetical end member, $ZnSnS_2$.

Zinkmanganerz. Ap. I, 74. Ab. MM 11, 337 (No. 53).
Massive. Compact. Dark brown or gray. A hydrous manganate of zinc. Mežica, Slovenia, Jugoslavia (formerly Bleiberg, Carinthia).

Zinntitanite. MA 6, 368.
A variety of titanite containing 10% tin. South West Africa.

Zircon favas. Ap. II, 12. DT 500.
Rolled pebbles, from diamond sands of Brazil, consisting almost entirely of baddeleyite. Light brown, gray to blackish. G 4.639–5.402. Probably alteration products of silicates containing zirconium.

Zircon-pyroxenes. Ab. MM 16, 376 (No. 77).
A group name for the zircono-silicates, rosenbuschite, laavenite, woehlerite, hiortdahlite, etc.

Zirkelite. Ap. I, 75; III, 87. DT 692. MM 11, 80–88 (No. 50); 11, 180–183 (No. 52). Ab. MM 11, 337 (No. 53). MM 16, 309–316 (No. 77).
Isometric. In octahedrons and twins. Black. H 5.5. G 4.706–4.741. A zirconate, titanate, and thorate of calcium and iron. $(Ca,Fe)(Zr,Ti,Th)_2O_5$. Jacupiranga, Brazil; Southern Sabaragamuwa, Ceylon.

Zirkite. Ab. AM 4, 104 (Aug. 1919). Ab. MM 18, 390 (No. 87).
A trade name for an ore of zirconium containing brazilite (baddeleyite), zircon, etc. Often called zircon favas. Brazil.

Zirklerite. DT 469. Ab. AM 13, 592 (Dec. 1928). Ab. MM 22, 630 (No. 134). MA 4, 14. CA 22, 3115.
Hexagonal, rhombohedral. Massive, fine granular. H about 3.5. G about 2.6. A hydrous oxychloride of iron, magnesium, calcium, and aluminum. $9(Fe,Mg,Ca)Cl_2.2Al_2O_3.3H_2O$. Hanover, Germany.

Zittavite. Ab. MM 16, 376 (No. 77). CA 6, 971.
A black, lustrous variety of lignite, resembling dopplerite, but more brittle and harder. G 1.33. Zittau, Saxony, Germany.

Zoesite. Ab. MM 16, 376 (No. 77).
A variety of fibrous silica, G 2.59, isolated by dissolving in acid the fossil shells from the Chalk formation. It differs in its optical orientation from the other forms of fibrous silica,

chalcedonite, quartzine, and lutecite. Not to be confused with zoisite, DS No. 406.

Zoisitic epidote. **AM 11, 218 (Aug. 1926).**
Same as pumpellyite.

Zonolite. **MA 3, 78. Ab. MM 21, 581 (No. 122). CA 20, 728.**
Trade name for a light, flaky material obtained by roasting vermiculite from near Libby, Montana, which swells to fifteen times its original volume forming golden yellow scales. A titanium-bearing jefferisite from Westcliffe, Colorado, is similar. See AM 9, 113–116 (May, 1924). MA 3, 57.

APPENDIX I

THE NEW NOMENCLATURE

The Report of the Committee on Nomenclature of the Mineralogical Society of America, as approved by the British Subcommittee, has now become effective in the United States. It is set forth at length in *The American Mineralogist* of March, 1924, and March, 1936, to which reference should be made for important details. Many changes are made in names to be used hereafter, as well as in nomenclature. These are summarized, alphabetically, in the following list and have been followed in the preceding text, except where authors have used other spelling.

Aanerödite. Preferred spelling for ånnerödite, DS No. 530.

Aenigmatite, DS No. 343. Spelling changed to enigmatite.

Aeschynite, DS No. 532. Spelling changed to eschynite.

Akermanite. Preferred spelling for åkermanite, DS p. 476.

Analcime. Preferred spelling for analcite, DS No. 450.

Analcite, DS No. 450. Spelling changed to analcime.

Anatase. Adopted as name of species heretofore known in U.S.A. as octahedrite, DS No. 252.

Ånnerödite, DS No. 530. Spelling changed to aanerödite.

Antimonite. Discredited name for stibnite, DS No. 28.

Argentite, DS No. 42. Confirmed as species name, discrediting argyrite.

Argyrite. Discredited as species name for argentite, DS No. 42.

Arsenopyrite, DS No. 98. Confirmed as species name, discrediting mispickel.

Autunite, DS No. 661. Confirmed as species name, discrediting calcouranite.

Azurite, DS No. 289. Confirmed as species name, discrediting chessylite.

Bauxite, DS No. 261. Discredited as a species.

Berzelite. Preferred spelling for berzeliite, DS No. 538.

Bismutosphärite, DS No. 283. Spelling changed to bismutospherite.

Bismutospherite. Preferred spelling for bismutosphärite, DS No. 283.

Blödite, DS No. 758. Spelling changed to bloedite.

Bloedite. Preferred spelling for blödite, DS No. 758.

Bornite, DS No. 78. Confirmed as species name, discrediting erubescite.

Calamine, DS No. 423. Name abandoned, the basic zinc silicate being hereafter called hemimorphite and the zinc carbonate, smithsonite.

Calcouranite. Discredited name for autunite, DS No. 661.

Catapleiite, DS No. 346. Spelling changed to catapleite.

Catapleite. Preferred spelling for catapleiite, DS No. 346.

Cerusite. Discredited spelling of cerussite, DS No. 281.

Cerussite, DS 281. Confirmed as species name, discrediting cerusite.

Chabasite. Discredited spelling of chabazite, DS No. 447.

Chabazite, DS No. 447. Confirmed as species name, discrediting chabasite.

Chalcopyrite, DS No. 83. Confirmed as species name, discrediting chalkopyrite.

Chalkopyrite. Discredited spelling of chalcopyrite, DS No. 83.

Chessylite. Discredited name for azurite, DS No. 289.

Chevkinite. Preferred spelling for tscheffkinite, DS No. 512, and tschewkinite.

Chrysoberyl, DS No. 242. Confirmed as species name, discrediting cymophane.

Chrysolite, DS No. 376. Discarded as species name in favor of olivine.

Cinnabar, DS No. 66. Confirmed as species name, discrediting cinnabarite.

Cinnabarite. Discredited as a name for cinnabar, DS No. 66.

Cordierite. Adopted as species name in place of iolite, DS No. 353, and dichroite.

Corundite. Discredited name for corundum, DS No. 231.

Corundum, DS No. 231. Confirmed as species name, discrediting corundite.

Cuprouranite. Discredited name for torbernite, DS No. 659.

Cyanite, DS No. 400. Discarded spelling of kyanite.

Cymophane. Discredited name for chrysoberyl, DS No. 242.

Dichroite. Discredited name of cordierite.

Enigmatite. New spelling adopted for aenigmatite, DS No. 343.

Eremeyevite. New spelling adopted for jeremejevite, DS No. 692.

Erubescite. Discredited name for bornite, DS No. 78.

Eschynite. New spelling adopted for aeschynite, DS No. 532.

Euclase, DS No. 403. Confirmed as name of species, discrediting euklase.

Euklase. Discredited spelling of euclase, DS No. 403.

Feldspar. Confirmed as a group name, discrediting feldspat and felspar.

Feldspat. Discredited name of feldspar.

Felspar. Discredited spelling of feldspar.

Fibrolite. Discredited as the name of the species sillimanite, DS No. 399, but to be confined hereafter to its fibrous variety.

Fluorite, DS No. 175. Confirmed as name of species, discrediting fluorspar.

Fluorspar. To be used hereafter only as a popular name for fluorite, DS No. 175.

Galena, DS No. 45. Confirmed as species name, discrediting galenite.

Galenite. Discredited as the name of the species, galena, DS No. 45.

Gaylussite. Preferred spelling of gay-lussite, DS No. 297.

Gay-lussite, DS No. 297. Discredited spelling of gaylussite.

Goethite. Preferred spelling of göthite, DS No. 257.

Göthite, DS No. 257. Discredited spelling of goethite.

Gypsite. Discredited name of gypsum, DS No. 746.

Gypsum, DS No. 746. Confirmed as species name, discrediting gypsite.

Haematite. Discredited spelling of hematite, DS No. 232.

Halite, DS No. 166. Confirmed as species name, discrediting salt and rock-salt.

Haüyne or Haüynite, DS No. 363. Discredited spelling of hauynite.

Hauynite. Preferred spelling of haüyne and haüynite, DS No. 363.

Hematite, DS No. 232. Confirmed as species name, discrediting haematite.

Hemimorphite. Adopted as species name for the basic silicate of zinc, heretofore called in U.S.A. calamine, DS No. 423, and in England, smithsonite, DS No. 275.

Hielmite, DS No. 531. Discredited spelling of hjelmite.

Hjelmite. Preferred spelling of hielmite, DS No. 531.

Hübnerite, DS No. 813. Discredited spelling of huebnerite.

Huebnerite. Preferred spelling of hübnerite, DS No. 813.

Hydrocerusite. Discredited spelling of hydrocerussite, DS No. 292.

Hydrocerussite, DS No. 292. Confirmed as species name, discrediting hydrocerusite.

Idocrase. Adopted as name of species heretofore known in U.S.A. as vesuvianite, DS No. 393.

Ihleite. Preferred spelling of ihlëite, DS No. 774.

Ihlëite, DS No. 774. Discredited spelling of ihleite.

Iolite, DS No. 353. Discredited name of cordierite.

Iron pyrites. Discredited as name of species pyrite, DS No. 85, but still retained as a popular name.

Jeremejevite, DS No. 692. Discredited spelling of eremeyevite.

Koettigite. Preferred spelling of köttigite, DS No. 604.

Köttigite, DS No. 604. Discredited spelling of koettigite.

Kroehnkite. Preferred spelling of kröhnkite, DS No. 776.

Kröhnkite, DS No. 776. Discredited spelling of krochnkite.

Kyanite. New spelling adopted, replacing cyanite, DS No. 400.

Laavenite. Preferred spelling of låvenite, DS No. 332.

Labradorite, DS No. 319. Confirmed as name of species, discrediting labrador.

Langbanite. Preferred spelling of långbanite, DS No. 419.

Långbanite, DS No. 419. Discredited spelling of langbanite.

Låvenite, DS No. 332. Discredited spelling of laavenite.

Linnaeite, DS No. 79. Discredited spelling of linneite.

Linneite. Preferred spelling of linnaeite, DS No. 79.

Loellingite. Preferred spelling of löllingite, DS No. 97.

Loewigite. Preferred spelling of löwigite, DS No. 802.

Loewite. Preferred spelling of löweite, DS No. 757.

Löllingite, DS No. 97. Discredited spelling of loellingite.

Löweite, DS No. 757. Discredited spelling of loewite.

Löwigite, DS No. 802. Discredited spelling of loewigite.

Lueneburgite. Preferred spelling of lüneburgite, DS No. 682.

Lüneburgite, DS No. 682. Discredited spelling of lueneburgite.

Magnesite, DS No. 272. Confirmed as species name, discrediting magnesium carbonate.

Manganostibite. Preferred spelling of manganostibiite, DS No. 583.

Meerschaum. Name of species hereafter to be sepiolite, DS No. 485. Meerschaum is defined as the variety consisting of a "mixture of fine-fibrous material and an amorphous substance of apparently the same composition."

Mispickel. Discredited name of arsenopyrite, DS No. 98.

Nepheline. Adopted as species name in place of nephelite, DS No. 357.

Nephelite, DS No. 357. Discredited name of nepheline.

Nitratite. Adopted as species name in place of soda-niter, DS No. 683.

Octahedrite, DS No. 252. Discarded as species name, in favor of anatase.

Olivine. Adopted as species name in place of chrysolite, DS No. 376.

Orthoclase, DS No. 313. Confirmed as species name, discrediting orthoklase.

Orthoklase. Discredited name of orthoclase, DS No. 313.

Phenacite, DS No. 382. Discredited spelling of phenakite.

Phenakite. Preferred spelling of phenacite, DS No. 382.

Phenicochroite. Preferred spelling of phoenicochroite, DS No. 726.

Phoenicochroite, DS No. 726. Discredited spelling of phenicochroite.

Plagioclase. Confirmed as group name, discrediting plagioklase.

Plagioklase. Discredited spelling of plagioclase.

Pyrite, DS No. 85. Confirmed as species name, discrediting pyrites and iron-pyrites.

Pyrites. Discredited as name of the species pyrite, DS No. 85.

Realgar, DS No. 26. Confirmed as species name, discrediting realgarite.

Realgarite. Discredited as name of species realgar, DS No. 26.

Rock-salt. Discredited as name of the species halite, DS No. 166, but retained as a popular name.

Roemerite. Preferred spelling of römerite, DS No. 778.

Römerite, DS No. 778. Discredited spelling of roemerite.

Rutile, DS No. 250. Confirmed as species name, discrediting rutilite.

Rutilite. Discredited name of species rutile, DS No. 250.

Salammoniac. Preferred spelling of sal-ammoniac, DS No. 168.

Salammonite. Discredited name of salammoniac.

Salt. Discredited as name of species halite, DS No. 166.

Scapolite. Adopted as name of species heretofore known in U.S.A. as wernerite, DS No. 387.

Schroetterite. Preferred spelling of schrötterite, DS No. 500.

Schrötterite, DS No. 500. Discredited spelling of schroetterite.

Selensulfur. Preferred spelling of selensulphur, DS No. 4.

Selensulphur, DS No. 4. Discredited spelling of selensulfur.

Sepiolite, DS No. 485. Confirmed as species name, discrediting meerschaum.

Sillimanite, DS No. 399. Confirmed as species name, discrediting fibrolite, which is defined as its fibrous variety.

Smithsonite, DS No. 275. Confirmed as species name for zinc carbonate, discrediting British use of this name for the basic zinc silicate heretofore called calamine in U.S.A., and hereafter to be called hemimorphite.

Soda-niter, DS No. 683. Name of species hereafter to be nitratite.

Sphaerite, DS No. 643. Discredited name of spherite.

Sphaerocobaltite, DS No. 276. Discredited spelling of spherocobaltite.

Sphene. Adopted as species name in place of titanite, DS No. 510.

Spherite. Preferred spelling of sphaerite, DS No. 643.

Spherocobaltite. Preferred spelling of sphaerocobaltite, DS No. 276.

Spodumene, DS No. 327. Confirmed as species name, discrediting triphane.

Stibnite, DS No. 28. Confirmed as species name, discrediting antimonite.

Stuetzite. Preferred spelling for stützite, DS No. 41.

Stützite, DS No. 41. Discredited spelling of stuetzite.

Sulfohalite. Preferred spelling of sulphohalite, DS No. 728.

Sulfur. Preferred spelling of sulphur, DS No. 3.

Sulphohalite, DS No. 728. Discredited spelling of sulfohalite.

Sulphur, DS No. 3. Discredited spelling of sulfur.

Tachhydrite, DS No. 202. Discredited spelling of tachyhydrite.

Tachyhydrite. Preferred spelling of tachhydrite, DS No. 202.

Titanite, DS No. 510. Name of species hereafter to be sphene.

Titan-olivine. Discredited as a species.

Torbernite, DS No. 659. Confirmed as species name, discrediting cuprouranite.

Troegerite. Preferred spelling of trögerite, DS No. 665.

Trögerite, DS No. 665. Discredited spelling of troegerite.

Trona, DS No. 299. Confirmed as species name, discrediting tronite.

Tronite. Discredited as species name of trona, DS No. 299.

Tscheffkinite, DS No. 512. Discredited spelling of chevkinite.

Turgite, DS No. 255. Discredited as a species.

Uranosphaerite, DS No. 713. Discredited spelling of uranospherite.

Uranospherite. Preferred spelling of uranosphaerite, DS No. 713.

Vesuvianite, DS No. 393. Name of species hereafter to be idocrase.

Wernerite, DS No. 387. Name of species hereafter to be scapolite.

Woehlerite. Preferred spelling for wöhlerite, DS No. 333.

Wöhlerite, DS No. 333. Discredited spelling of woehlerite.

Zinc carbonate. Name of mineral hereafter to be smithsonite, DS No. 275.

Zincosite. Preferred spelling for zinkosite, DS No. 723.

Zinkosite, DS No. 723. Discredited spelling of zincosite.

APPENDIX II

CHEMICAL ELEMENTS AND THEIR SYMBOLS

Actinium	Ac	Molybdenum	Mo
Aluminum	Al	Neodymium	Nd
Antimony	Sb	Neon	Ne
Argon	Ar	Nickel	Ni
Arsenic	As	Niobium	Nb
Barium	Ba	Nitrogen	N
Beryllium	Be	Osmium	Os
Bismuth	Bi	Oxygen	O
Boron	B	Palladium	Pd
Bromine	Br	Phosphorus	P
Cadmium	Cd	Platinum	Pt
Caesium	Cs	Polonium	Po
Calcium	Ca	Potassium	K
Carbon	C	Praseodymium	Pr
Cerium	Ce	Protoactinium	Pa
Chlorine	Cl	Radium	Ra
Chromium	Cr	Radon	Rn
Cobalt	Co	Rhenium	Re
Copper	Cu	Rhodium	Rh
Dysprosium	Dy	Rubidium	Rb
Erbium	Er	Ruthenium	Ru
Europium	Eu	Samarium	Sm
Fluorine	F	Scandium	Sc
Gadolinium	Gd	Selenium	Se
Gallium	Ga	Silicon	Si
Germanium	Ge	Silver	Ag
Gold	Au	Sodium	Na
Hafnium	Hf	Strontium	Sr
Helium	He	Sulfur	S
Holmium	Ho	Tantalum	Ta
Hydrogen	H	Tellurium	Te
Illinium	Il	Terbium	Tb
Indium	In	Thallium	Tl
Iodine	I	Thorium	Th
Iridium	Ir	Thulium	Tm
Iron	Fe	Tin	Sn
Krypton	Kr	Titanium	Ti
Lanthanum	La	Tungsten	W
Lead	Pb	Uranium	U
Lithium	Li	Vanadium	V
Lutecium	Lu	Xenon	Xe
Magnesium	Mg	Ytterbium	Yb
Manganese	Mn	Yttrium	Y
Masurium	Ma	Zinc	Zn
Mercury	Hg	Zirconium	Zr

Didymium (Di) = Neodymium and Praseodymium